

Spring 5-1-2015

## **Developmental Education at the Community College: An Exploration of Instructional Best Practices and the Relationship between Integration, Student Involvement and Rates of Completion**

Beverly Gayle Strickland Lewis  
*University of Southern Mississippi*

Follow this and additional works at: <https://aquila.usm.edu/dissertations>



Part of the [Community College Education Administration Commons](#), [Community College Leadership Commons](#), [Curriculum and Instruction Commons](#), [Educational Leadership Commons](#), [Higher Education Commons](#), [Higher Education Administration Commons](#), and the [Student Counseling and Personnel Services Commons](#)

---

### **Recommended Citation**

Lewis, Beverly Gayle Strickland, "Developmental Education at the Community College: An Exploration of Instructional Best Practices and the Relationship between Integration, Student Involvement and Rates of Completion" (2015). *Dissertations*. 83.  
<https://aquila.usm.edu/dissertations/83>

This Dissertation is brought to you for free and open access by The Aquila Digital Community. It has been accepted for inclusion in Dissertations by an authorized administrator of The Aquila Digital Community. For more information, please contact [Joshua.Cromwell@usm.edu](mailto:Joshua.Cromwell@usm.edu).

The University of Southern Mississippi

DEVELOPMENTAL EDUCATION AT THE COMMUNITY COLLEGE: AN  
EXPLORATION OF INSTRUCTIONAL BEST PRACTICES AND  
THE RELATIONSHIP BETWEEN INTEGRATION, STUDENT  
INVOLVEMENT AND RATES OF COMPLETION

by

Beverly Gayle Strickland Lewis

Abstract of a Dissertation  
Submitted to the Graduate School  
of The University of Southern Mississippi  
in Partial Fulfillment of the Requirement  
for the Degree of Doctor of Philosophy

May 2015

## ABSTRACT

# DEVELOPMENTAL EDUCATION AT THE COMMUNITY COLLEGE: AN EXPLORATION OF INSTRUCTIONAL BEST PRACTICES AND THE RELATIONSHIP BETWEEN INTEGRATION, STUDENT INVOLVEMENT AND RATES OF COMPLETION

by Beverly Gayle Strickland Lewis

May 2015

The purpose of this study was to explore the developmental education process within the community college system in Mississippi. Tinto's (1993) Integration Theory and Astin's (1993) Theory of Student Involvement were employed as a framework to assess and understand the relationship between academic integration, social integration, student involvement, and rates of completion.

This concurrent mixed method study identified best practices related to the successful completion of developmental education courses from the vantage point of the faculty and administration at the community college. A total of ten faculty and administrators from five of the community colleges in Mississippi were given a 13-item interview questionnaire and participated in a face-to-face interview to gather these best practices. The theoretical perspective of "interpretivism" was used to understand the interviewees' responses, thereby identifying common themes among those who were interviewed.

Secondly, a total of 186 Mississippi Community College students participated in the study by completing the Modified Institutional Integration and

Student Involvement Questionnaire. The data were analyzed through a multivariate analysis of variance (MANOVA). The MANOVA provided a p-value for each dependent variable indicating if the difference and interaction as statistically significant. Additionally, a One-Way ANOVA was also conducted.

The final results of this study included a list of 10 best practices that were based on the interviews with faculty members and administrators from some of the community colleges in Mississippi. Secondly, the study found that 72.9% of community college students enrolled in developmental math continue on and complete intermediate algebra or college algebra. Additionally, 36.5% of community college students enrolled in developmental English continue on and complete English Composition I. Further, the results indicated by this study is that there was not a difference between developmental education students and non-developmental education students as it pertained to the faculty interaction subscales and the student interaction subscales. However, there was a difference between the involvement of developmental education students and non-developmental education students. The developmental education students were more involved with outside activities than the non-developmental education students.



COPYRIGHT BY  
BEVERLY GAYLE STRICKLAND LEWIS  
2015

The University of Southern Mississippi

DEVELOPMENTAL EDUCATION AT THE COMMUNITY COLLEGE: AN  
EXPLORATION OF INSTRUCTIONAL BEST PRACTICES AND  
THE RELATIONSHIP BETWEEN INTEGRATION, STUDENT  
INVOLVEMENT AND RATES OF COMPLETION

by

Beverly Gayle Strickland Lewis

A Dissertation  
Submitted to the Graduate School  
of The University of Southern Mississippi  
in Partial Fulfillment of the Requirement  
for the Degree of Doctor of Philosophy

Approved:

Dr. Kyna Shelley  
Committee Chair

Dr. Aubrey K. Lucas

Dr. Thomas Lipscomb

Dr. Lilian Hill

Dr. Richard Mohn

Dr. Karen S. Coats  
Dean of the Graduate School

May 2015

## DEDICATION

*To the loving memory of my husband, Reverend Mike Lewis, who believed that education is an avenue to success.*

*To my beautiful children, Chad, Brittney, and Christian, who always encouraged me and gave me a reason to follow my dreams.*

To my parents, John and Carrie Strickland, for giving me unconditional love and support.

To my sisters (Ruby, Jerrie, Pam, Jennifer), my brothers (John and Peter), my special aunt, Missouri Lee, my nieces, and my nephews, for always expecting more from me and pushing me to achieve to my goals.

Finally, this dissertation is dedicated to my Savior, the Lord Jesus Christ. Without the presence of God, Jesus Christ and the Holy Spirit I would have failed and given up. All of the success and all of the promotions I have enjoyed are directly related to God.

## ACKNOWLEDGMENTS

This dissertation would not have been possible without some important individuals who have been critical sources of support and encouragement. I have an enormous amount of gratitude for all of you and feel honored by your presence in my life.

I would like to acknowledge and thank my committee, Dr. Kyna Shelley, Chair, Dr. Lilian H. Hill, Dr. Richard S. Mohn, Dr. Thomas J. Lipscomb, and Dr. Aubrey K. Lucas because without you this process would not have been possible. Thank you for the time and effort spent on making this project a success.

## TABLE OF CONTENTS

ABSTRACT .....	ii
DEDICATION .....	v
ACKNOWLEDGMENTS .....	vi
LIST OF TABLES .....	ix
CHAPTERS	
I. INTRODUCTION.....	1
Statement of the Problem	
Purpose of the Study	
Research Questions and Hypotheses	
Justification	
Delimitations of the Study	
Assumptions	
Definition of Terms	
Summary	
II. REVIEW OF RELATED LITERATURE .....	17
Introduction	
Tinto's Integration Theory	
Astin's Theory of Student Involvement	
Academic and Social Integration	
Student Involvement	
Academically Underprepared Students	
Developmental Education	
Community Colleges	
Retention	
Summary	
III. METHODOLOGY.....	63
Introduction	
Research Questions and Hypotheses	
Research Design and Data Collection	
Description of Procedures	
Population and Sampling	
Instrumentation	
Data Analysis	

IV.	RESULTS .....	74
	Sample Descriptive	
	Assumptions	
	Theme 1: Curriculum	
	Theme 2: Monitoring	
	Theme 3: Campus Resources	
	Theme 4: Communication	
	Theme 5: Connection	
	Theme 6: Financial Aid and/or Governance	
	The Modified Institution Integration and Student Involvement	
V.	SUMMARY .....	112
	Findings	
	Discussion	
	Implications for Policy and Practice	
	Limitations and Suggestions for Future Research	
	APPENDIXES.....	127
	REFERENCES .....	146

## LIST OF TABLES

### Table

1.	Mississippi Community Colleges .....	54
2.	Demographic Characteristics of Interviewees with Pseudonym.....	75
3.	Student Demographical Information .....	77
4.	Principal Themes from Administration and Faculty Interviews .....	78
5.	Community College Enrollment and Developmental Education Enrollment .....	102
6.	Developmental Course Completion Percentages of Individual Community College Enrollment as well as the Community College System Enrollment (N=16,480) in Developmental Education .....	105
7.	Means and Standard Deviations for Faculty Factor Subscales.....	109
8.	Means and Standard Deviations for Student Factor Subscales .....	110
9.	Means and Standard Deviations for Student Involvement Subscales .....	111

## CHAPTER I

### INTRODUCTION

The vast majority of children grow up believing that to survive as an adult, a person must have a job, thereby fulfilling the American Dream. A large part of the American dream can be affected by an individual's ability to obtain a postsecondary degree. It is understandable to assume that a person's earning potential is directly related to his or her education level. The 2010 U.S. Census reported that workers' average yearly earnings increase with each successful higher education level completed (Day & Newburger, 2002). A high school education is considered "a gateway to higher education, advanced training, as well as greater earnings potential" (Tavakolian & Howell, 2012, p.70). Therefore, high schools are also important to helping students achieve their dream of additional education and increased lifetime earnings potential. McCabe (2000) reports that only 43% of the students who graduate from high school are prepared for college courses work. Those students who leave high school and later complete a General Education Diploma (GED) are believed to be even less prepared (Garvey, 2011).

Students who leave high school not prepared for college level courses are categorized as being academically underprepared. Academic under-preparedness refers to the gap that exists between the student's abilities, knowledge, habits, and skills needed to complete college (Arkansas State Department of Education, 2006; Garvey, 2011). In an attempt to bridge this gap



for those students who are academically underprepared, institutions of higher learning offer developmental education.

Developmental education has been defined by Boylan and Bonham (2007) as services and courses arranged and delivered to help retain students and enhance the students' chances of matriculating to graduation.

Developmental education consists of courses such as mathematics, English, and reading. These courses can have a positive effect by increasing a student's ability to complete their education and begin their career. McCabe (2000) contends that most students who successfully complete their developmental education courses could become productively employed.

During economic hard times, greater numbers of people will choose to return to school and the influx of additional students will create a challenge for community colleges and universities. Institutions may have to increase their staff to handle those students, particularly the large number of those students who will need some kind of developmental education to ensure that they succeed. Offering developmental education courses is a crucial need for students who are underprepared, and if those students do not succeed in developmental education, they will not have an opportunity to succeed anywhere (McClenney, 2004). The need for developmental education implies that students are not mastering the skills necessary for college level work before they graduate from high school, and that they are coming to the postsecondary institution underprepared. Institutions of higher learning could consider making the developmental educational processes and programs a function of the faculty,

counselors, and especially administrators. However, not all institutions are in favor of developmental education being offered at the community college level. According to McClenney (2004), a possible solution to deciding where to offer developmental education is to shift it to high schools, where it belongs.

One of the results of students being academically underprepared because of the lack of developmental education is the low retention rate at many colleges. Retention is defined as the act of keeping, holding or retaining something (Stein, 1980). Retention exists when students remain at an institution until they receive their certificates or diplomas in their field of study (Derby & Smith 2004). More broadly, retention is continuing on a set course until the completion of a predetermined objective; the objective could be the completion of one class or graduation.

Clearly, simply enrolling in an institution of higher learning does not guarantee academic success or matriculation to graduation. For example, the national graduation rate for public 4-year institutions for those students who enrolled in 2001 and graduated by 2007 was 55%, according to the (Southern Regional Education Board Fact Book 2009). During that same time, the national graduation rate for public 2-year institutions was much less at 20% (Southern Regional Education Board Fact Book, 2009). A wide variety of factors contribute to student attrition. Some of those factors include a history of socially disadvantaged conditions, a poor high school record, lack of resources, lack of support from significant others, lack of financial resources, the quality of academic advisement, the length of time from high school graduation, family

pressure and responsibilities, uneducated parents, demands on time, poor study habits, difficult personal adjustment, integration with college life, employment responsibilities, as well as academic underpreparedness (Allen & Smith, 2008; Astin, 1975; DeWitz, Woolsey, & Walsh, 2009; McArthur, 2005; Oseguera & Rhee, 2009).

Some researchers of academic underpreparedness contend that retention is the primary function of the community college systems (Mazzarelli, 2010). The challenge with retaining students is not new, and it is not just a problem for the community college system, as it has existed since the 1800's and continues to exist at most institutions of higher learning (McCabe, 2000). Young and Ewing, (1978) reported that the University of Michigan began addressing the retention problem as it relates to underprepared students as early as 1892. The fact that so many colleges invest serious capital in retention programs is ample evidence that, from an institutional viewpoint, degree completion at the student's first college is an important outcome (Astin, 2004).

The most effective control an institution has over student retention is during the freshman year (Veenstra, 2009). It is easier to enhance the skills and knowledge of underprepared students when they are at the beginning of their college career, and many institutions have created programs to help retain students during the first year. Having to bring up a low grade point average (GPA) after several semesters of failed courses, can be a discouraging process for the students.

A student's objective for going to college is often to prepare for a career which will make the student a functioning member of society. Astin and Oseguera (2005) reported that only 58% of students entering college graduate within six years. Alkandari (2008) maintained that the burden of positively motivating students belongs to administrators and can be accomplished when an institution provides an effective academic and non-academic environment that will facilitate students' persistence and development of their personalities. Educational programs can also be instrumental in contributing to the success of all students even beyond the freshman year. Some of the programs created to enhance a student's likelihood to persist to graduation are first-year experience, freshman year seminars, advising programs, tutoring programs, mentoring programs, remedial education programs, and freshman developmental courses for underprepared students (Tinto, 1998; Veenstra, 2009).

One way to address the needs of underprepared students is through their enrollment in developmental education courses. Community colleges are uniquely qualified to offer developmental education because of their "open door" policy and the willingness to offer quality education to all who desire to attain it (McClenney, 2004; Price, 2004; Wilson, 2004). The open door policy refers to the community college policy to accept any student, regardless of his or her academic ability. The community college institutional structure could allow the community college to be more effective in preparing underprepared students for success, while leaving the 4-year institutions to focus on more advanced training (Mazzarelli, 2010). Community colleges have been a setting for increasing the

knowledge base of students who are underprepared for college level work.

According to Astin and Oseguera (2005), all community colleges should “have a vested interest in raising the educational level of their underprepared students” (p.19) as a part of their mission statement. The role of the community college relating to the enhancement of underprepared students’ dates back as early as 1892 when William Rainey Harper, the president of the University of Chicago, suggested that the purpose of the first community college was to provide the University of Chicago with academically prepared students (The American Association of Community College (AACC), 2012). Although the community colleges have been mandated by the legislature and society to offer developmental education, many institutions are being asked to function on reduced state and federal funding (Mazzarelli, 2010). At the same time, Mazzarelli (2010) implies that the lack of funding often serves as a deterrent to the institution’s ability to offer developmental education courses. State policies discouraging institutions from educating underprepared students could be working against the long-term interest of the state (Astin & Oseguera, 2005).

Today, according to the American Association of Community Colleges (AACC) website, there are more than 1,160 community colleges in the United States that have educated more than half of the nation’s undergraduates (AACC, 2012). The website also reported that over 100 million students have attended community colleges. The ability of community college administration, staff, and faculty to learn how to accommodate the reality of underprepared students is a

strategy that community colleges are encouraged to embrace and explore at the institutional level (Barr & Schuetz, 2008).

For the purpose of this research project, the researcher's theoretical foundation was Vincent Tinto's model of college student retention. This model has been cited more than 400 times, and his integration theory has been adopted as a method to enhance many educational institutions' retention rates (Coll & Stewart, 2008). This theory can be used to suggest that students are more likely to continue enrollment if the students become academically and socially connected to the institution, and it further suggests that the stronger the student's connection to the institution, the better developed the student's academic and social skills (Karp, Hughes, & O'Gara, 2008; Tinto, 1993). An additional theoretical foundation was Alexander W. Astin's theory of student involvement. Astin's theory posits that students can improve their chances of a successful college career by becoming personally involved. Astin (1975) proposed that administrators, faculty members, and staff members are important parties who have the ability to influence student persistence.

### Statement of the Problem

Many students graduate high school and enter college without the skills necessary to successfully complete a degree. There is agreement about the need for programs to enhance a student's chances of successful completion, such as developmental education programs. However, there is some debate about the effectiveness of these programs. Additionally, research fails to provide clear overall processes that identify some of the instructional practices that will

help students who take developmental education courses to complete their degree.

### Purpose of the Study

The purpose of this concurrent mixed method study was to identify characteristics or the best practices related to the successful completion of developmental education courses that faculty, administrators and, other educators believe are important. Additionally, the success of developmental education students was explored using interviews with faculty and administrators involved with developmental education at the community college. The principles and common themes were ultimately presented as a set of best practices.

Furthermore, this study compared the rates of completion for developmental students (defined as those who successfully complete developmental courses) to non-developmental students (students who did not enroll developmental courses) for the Fall 2010 cohort and 2010-2011 enrollments at one of the fifteen community colleges in Mississippi. Developmental education was defined as any course taken to enhance a student's ability to complete a gateway course at the university level. Any student who wants to succeed in college should graduate high school ready for college (Markow & Pieters, 2011), but McCabe (2003) reported that "more than 40% of beginning community college students are underprepared" (p. 18) for college level learning. Therefore, developmental education is often used to help enhance the underprepared students prevail in their college career. A student's score on a standardized test, such as ACT test or SAT test, is often used by the institution to

determine if a student needs to take a developmental course. The final purpose of this study was to explore the relationship between academic integration, social integration, student involvement, and rates of completion by surveying currently enrolled community college students.

In this study, the Institutional Integration and Student Involvement Questionnaire were used to measure the relationship between developmental and non-developmental education status, integration, and student involvement. The concurrent mixed method approach was utilized to gain a better understanding of this research problem by exploring both quantitative and qualitative data (Creswell, 2009).

### Research Questions and Hypotheses

The researcher utilized a mixed method research approach that combines both qualitative and quantitative research methods in an attempt to strengthen the effectiveness of this project. There were two general research questions and three research hypotheses which guide this study.

#### *Research Questions*

1. Are there instructional best practices related to the successful completion of developmental courses?
2. Is there a difference in the rates of completion of developmental and non-developmental education student status?

#### *Hypotheses*

1. There is a significant difference in the faculty factor (interaction with faculty subscale and faculty concern for student development subscale) of



integration of students at the community college based on developmental education and non-developmental education status.

2. There is a significant difference in the student factor (peer-group interaction subscale, academic and intellectual development subscale and institutional and goal commitment subscale) of integration of students at the community college based on developmental education and non-developmental education status.
3. There is a significant difference in student involvement at the community college based on developmental education and non-developmental education status.

#### Justification

This study was conducted to explore what those who were currently involved in the developmental education process believe to be successful habits of both students with emphasis on the opinions of faculty members teaching developmental education courses. Another reason for conducting this study was to compare the rates of completion for developmental education and non-developmental education student at the community college within a specific period of time, those students enrolled between 2009 and 2011. This study should add to the body of research to enable policy makers, administrators, faculty members, and supporters at the community college to make informed decisions about developmental education. The information from this study will be shared with those community colleges in Mississippi who are represented in the study. Community colleges could potentially use this information with planning

and decision making as well as training directives for developmental education faculty.

“President Obama has declared that community colleges will be critical to achieving his goal for the United States to have the highest college attainment rate in the world by the year 2020” (Vandal, 2009, p.1). As community college leaders and administrations move forward, the reality of educating the underprepared could possibly become a priority (Beaver, 2010; Viadero, 2009). If President Obama’s goal is to be reached, the research results of this study could be helpful to the institutions in Mississippi.

#### Delimitations of the Study

One of the delimitations was the sample size of the community colleges in Mississippi. The interviews were delimited to those administrators and/or faculty members who taught developmental education courses at six of the community colleges in Mississippi. Another delimitation of this study was the fact that the researcher is comparing those students who completed between 2009 and 2011. The rates of completion were collected for all 15 of the community colleges in Mississippi. These comparisons were also made between those students enrolled in developmental education courses and those who did not enroll in developmental education courses. The final delimitation of this research study was that the questionnaires were administered only to currently enrolled students in a developmental English course section and an English I course section at each of the community colleges chosen for the study. Furthermore, only those

students who were present on the day the survey was administered were included in this study.

### Assumptions

The researcher assumed that the archival data received from the Mississippi Board of Community College were accurate and that all 15 community colleges were represented in the data. The researcher assumed that all questionnaire respondents and interview respondents were honest, accurate, and unbiased when responding to each questionnaire item and interview question. Furthermore, the researcher assumed that all participants completing the questionnaire were enrolled in either developmental English courses or English I courses during the Summer 2014 or Fall 2014 semesters.

### Definition of the Terms

The following definitions were used for this research project:

*Academic integration* relates to the level of student academic engagement with faculty and fellow students as reflected in GPA, intellectual stimulation, and personal intellectual development (Tinto, 2004).

*Academic underprepared/underpreparedness* refers to the gap that exists between the student's abilities, knowledge, and habits and the skills needed to complete college (Arkansas State Department of Education, 2006; Garvey, 2011).

*Completion rate* refers to a student who completed a course with a final grade of A, B, C, or D.

*Delayed transfer* students refer to those students who withdraw from one institution but do not enroll at a different institution until later in life (Tinto, 1993).

*Developmental education* refers to a process of developing a student academically and intellectually. This process includes but is not limited to tutoring, counseling, academic advising, and coursework. Developmental education is defined by Boylan and Bonham (2007) as courses and services organized and delivered in an effort to help retain students and enhance the students' chances of matriculating to graduation.

*Developmental education courses* refer to courses in English, math, and reading designed to enhance the academic success of academically underprepared college students. These courses do not apply to any degree.

*Developmental education student* refers to a student who, because of a low standardized test score, is required to take a developmental education course in English, math, or reading. The student must successfully complete the developmental education course before they are allowed to take a regular college course. Successful completion is based on the student receiving a grade of A, B or C based on the college's grading scale.

*Faculty factors* refers to the subscales, interactions with faculty and faculty concern for student development and teaching, utilized in the Institutional Integration Scale to measure academic and social integration (French & Oakes, 2004).

*Gateway course* refers to the first college-level English and math course students are required to take to obtain a college degree.

*General Education Diploma (GED)* refers to an alternative high school diploma and is “widely regarded as the best ‘second chance’ pathway to college, vocational training and military service for adults who have not graduated from high school” (Fry, 2010, p.ii).

*Graduation rate* refers to the percentage of students who begin college and graduate within a standardized period of time. Two-year college graduation rates are measured over a three-year period (Kuh, 2009).

*Immediate transfer student* refers to those students who withdraw from one institution because they will be transferring to another one (Tinto, 1993).

*Institutional departure* refers to students who leave an institution to attend another institution (Tinto, 1993).

*Institutional stop-outs* refer to students who stop going to college, but return to their initial institution to complete their degree (Tinto, 1993).

*Non-developmental education student* refers to those students who are allowed, based on standardized test scores, to enroll in regular education courses without any developmental education enhancement.

*Retention* refers to a student continuing on a set course until the completion of a predetermined objective. Retention exists when students remain at an institution until they receive their certificates or diplomas in their field of study (Derby & Smith, 2004).

*Social integration* refers to the way the student interacts with others outside the classroom at non-instructional functions. Students who are socially

integrated will be involved with things such as academic clubs, social clubs or Greek organizations, or study groups (Tinto, 2004).

*Standardized test* refers to a test that is administered and scored in a predetermined manner regardless of where or when the test is being given. The purpose of the test is to make some inference about the individuals' academic ability to be successful in college level courses.

*Student factors* refers to the subscales, peer-group interactions, academic and intellectual development, and institutional and goal commitment, utilized in the Institutional Integration Scale use to measure academic and social integration (French & Oakes, 2004).

*Student involvement* refers to a student who becomes personally involved with his or her college experience both in the classroom and outside of the classroom (Astin, 1984).

*Successful developmental student* refers to a student who completes a developmental course with a passing grade and subsequently enrolls in a regular college course.

*System departure* refers to students who leave the higher education system. The student withdraws from an institution but does not enroll at another institution. The student leaves higher education altogether (Tinto, 1993).

*Talent development* as the institution's ability to develop the talents or abilities of their students as well as their faculty (Astin, 1991).

*Withdrawal* refers to a student voluntarily leaving college and courses without completing the semester or receiving a grade for the course.

## Summary

The researcher's overall purpose of this study was to identify the characteristics that educators believe to be important to the success of students enrolled in developmental education courses. Moreover, with this study, the researcher attempted to examine the success of students taking developmental education courses as compared to students who are not required to take developmental education courses. Along with the previous purposes, the research examined the relationship between integration, student involvement and rates of completion. Additionally, the researcher, attempted to increase the body of knowledge available to faculty, administration, and other educators to assist in maintaining and improving the programs and services offered at the postsecondary level.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### Introduction

The ultimate aim of any community college or university is student success and degree attainment. Nitecki (2011) defined success at the community college to include personal accomplishments, job promotion, receiving a certificate or associate's degree, and/or transferring to a senior college. The measurement used to indicate a community college student's success is often graduation rates which can be misleading. Graduation rates are associated with obtaining a degree within a specific time frame, but community college students tend to take longer to graduate because of family and work obligations (Nitecki, 2011). Conversely, at the community college, degree attainment is not the only way to measure success. Some students consider themselves as successful when they complete only one course, enhance a job skill or gain professional development (Nitecki, 2011).

Success at the community college, including successful degree attainment, is important to America, as well as to the community college leaders and administrators. The benefits of successfully completing a college degree have been well documented. In an occasional paper for The Pell Institute, Tinto (2004) implied that people with a college education will participate productively in the nation's government by giving their time and money, actively helping with community services that reduce public/governmental assistance, and commit fewer crimes. Additionally, a study by the U.S. Census Bureau indicated that in



1999, a student with a high school education could earn on average \$30,400 a year, while a student with a bachelor's degree could earn on average \$52,200, and students, who have some college education, but did not obtain a degree, would earn on average \$36,800. On the other hand, not graduating can cost students, because they waste tuition money, and the time they have spent going to college. Some students have incurred debt because of student loans, but have not increased their income to give them extra money to pay the loans back. Some students will lose out on some future increased earnings (Adams, 2011). Porter (2006) proposed that if the nation's younger population does not keep pace with the educational completion levels of previous generations, America's ability to preserve its worldwide economic and educational leadership will be at serious risk. As the world becomes more globalized, the nation must have educated citizens in key positions to make decisions.

The benefits of an earned college degree have motivated college leaders, friends and administrators to study ways to aid in student success and enhance retention rates. There are several theories developed to give educators tools to improve graduation rates.

#### Tinto's Integration Theory

Many educational leaders have adopted Vincent Tinto's integration theory as a base to enhance their institution's retention rate. The foundation of Tinto's theoretical framework was based on the work of Arnold Van Gennep's rites of passage theory and Emile Durkheim's theory of suicide. Tinto (1993) cited that around 2.4 million students enrolled in college for the first time in 1993, but over

half of them withdrew before completing their degrees. These numbers could be unsettling for administrators and educators who are attempting to ensure that education is successful. To understand how to retain students, Tinto (1993) posits that institutional administrations should understand why the students leave the institution.

It has been reported that the more academically and socially immersed the students become with the institution, the more likely they are to persist to graduation (Tinto, 1998; Tinto & Cullen, 1975). Tinto (1993) cites that 25% of the students who drop out of school do so because they fail academically; the other 75% of students withdraw because they do not fit in at the university, and whereas a large portion of these students do not fit in academically, many do not fit in well socially. He wrote, “patterns of incongruence and isolation, more than that of academic incompetence appear to be central to the process of individual departure” (Tinto, 1993, p. 136). Tinto and Cullen (1975) identified the following predictors that lead to a student’s failure to persist to graduation: family background, expectations of institutional life, high school or pre-college experiences, and socioeconomic status.

For community college educators, it is important to understand that all students who withdraw from college are not dropout students. Students leave for a variety of reasons, such as having to support their families, and/or starting a family. Some depart because they have completed their goal of only completing a class or two. Tinto (1993) distinguishes between the two types of student departure as *institutional departures*, which include students who leave to attend

another institution, and *system departures*, which include students who leave the higher education system. Tinto (1993) proposes four reasons that a student withdraws from institutions. The first type of student withdrawal is an *immediate transfer* student, which includes those that withdraw from one institution because they will be transferring to another one. The second type of student withdrawal is a *delayed transfer* student, which includes students that withdraw from one institution but do not start a different institution until later in life. The third type of student withdrawal is the *institutional stopout* student, which includes those that stop going, but return to their initial institution. The fourth type of student withdrawal, which includes the stop-out student, is the *system departure* student, which includes those that leave higher education altogether.

Tinto's (1993) integration framework is one of the most popular theoretical perspectives being used to understand the problem of student retention (Karp, Hughes, & O'Gara, 2008; Summers, 2003). Tinto reported that students are more likely to continue enrolling at an institution if they become associated academically and socially with the institution (Karp, Hughes & O'Gara, 2008). This theory proposes that the stronger the student's integration in college life, both academically and socially, the greater the attainment of knowledge and development of skills (Tinto, 1993). Academic integration has various forms (Tinto & Cullen, 1975) and relates to the level of student academic involvement with faculty and fellow students as reflected in GPA, intellectual stimulation, and personal intellectual development. Social integration refers to the way the student interacts with others outside the classroom at non-academic functions. Students

who are socially integrated will be involved with things such as academic clubs, social clubs, Greek organizations, or study groups. Casual interaction between the student and the institution does not necessarily create integration. Tinto (1993) posits that effective integration depends on the “character of those interactions and the manner in which the individual comes to perceive them as rewarding or unrewarding” (p. 136). He reports that integration is a two-part process with the institution being responsible for creating conditions where the student can be socially and academically integrated and in which the student can behave as an actor and interpreter of his/her situation as it occurs.

Although there has been a plethora of research on retention, the majority of research has been in association with 4-year institutions as opposed to community colleges. The traditional retention programs were designed with the student demographics of the four-year colleges. Tinto’s (1993, 1997) integration theory proposes that the classroom should be viewed as a learning community. His assumption was that “engagement in the community of the classroom can become a gateway for subsequent student involvement in the academic and social communities of the college generally” (Tinto, 1997, pp. 616-617). This is very important at the community college because of the dynamics of community college students. Many community college students are commuters, married with a family, employed fulltime, and/or adult students returning to school for a career change. These students tend to come to class and leave to perform other life duties. Campus life is not always the most important aspect of college for some of these students. The only time the students and faculty interact is often during

the classroom experience, and it should “serve as a smaller social and intellectual meeting place” (Chaves, 2006, p. 142). Tinto (1997) refers to the classroom as the “crossroads where society and the academic meet” (p. 599).

### Astin’s Theory of Student Involvement

Alexander W. Astin’s theory of student involvement was another theory of interest related to student persistence that proposes that students can improve their chances of a successful college career by becoming personally involved. Astin’s theory of student involvement suggests that student involvement in college will increase what they gain from the experience (Astin, 1993). Thirty years ago, Astin (1984), referred to student involvement as “the quantity and quality of the physical and psychological energy that students invest in the college experience” (p. 528). The amount of time and effort students puts into their college career will have a positive effect on the student’s successful completion of their ultimate educational goal. Involvement includes devoting considerable zeal to studying, spending a lot of time on campus, being actively involved in student organizations, and/or habitually interacting with faculty members and other students (Astin, 1984). “The theory of student involvement encourages educators to focus less on what they do and more on what the student does: how motivated the student is and how much time and energy the student devotes to the learning process” (Astin, 1984, p. 522).

There are five basic assumptions of Astin’s theory of student involvement:

- 1) involvement will either be generalized or specific;
- 2) involvement will be individualized or specific to the student;
- 3) there is a quantitative and qualitative

component to involvement or a student increased ability to learn; 4) personal growth is directly related to the student's involvement; 5) involvement will be increased by the effectiveness of any educational policies or practice to foster involvement (Astin, 1984; Seidman, 2005). Astin (1984) indicated that the final two assumptions are the most useful to educational institutions because they can be useful for program development.

The institution can aid the student by enhancing the student's talent development (Astin, 1991). Talent development was defined as the institution's ability to develop the talents of their students as well as their faculty (Astin, 1991). Those who have the ability to influence a student's persistence to graduation, according to Astin (1975), are administrators, faculty members, and staff members, especially those in the offices of admissions, financial aid, placement, housing, and counseling. Administrators and other educators make decisions that affect talent development each time they consider what to teach, how to teach it, which students will be admitted to it and on what basis, how to direct and advise students, what courses to require, and many other things (Astin, 1991). Astin's theory contends that an institution changing its programs and policies to meet the interest and needs of their students will positively affect student persistence (Tanaka, 2002).

Tanaka (2002) notes that Astin's theory has advanced over time to be more adaptable to the modern avenues to today's diverse students. Astin (1975) reported that a wide range of institutional factors affecting student attrition, such as recruitment and admissions policies, residence requirements, allocation of

financial aid, selection of students for residence halls, availability of jobs on campus, grading practices, transfer policies, and the establishment of work-study programs. The theory of student involvement proposes that there is a positive relationship between retention and the way institutions select students. Astin (1975) listed six perspectives of student-institutional fit. The students' characteristics are parents' income, parents' education, ability, the size of hometown, the family religion, and race. The corresponding institutional characteristics are tuition, selectivity, the size of college, religious affiliation, and institutional race.

An implication of the theory of involvement is that faculty and administrators should focus on student learning and less on faculty teaching methods. According to Astin (1984) "administrators and faculty members must recognize that every institutional policy and practice can affect the way students spend their time and the amount of effort they devote to academic pursuits" (p. 523) and those decisions also have a profound effect on non-academic involvement . Some examples of these non-academic events include, students who live in student housing on campus, participating in extracurricular athletic activities, honor programs, involvement in Reserve Officers Training Corps (ROTC), work-study jobs, on-campus jobs, involvement in student government, and undergraduate research projects with a professor (Astin, 1984; Derby & Smith, 2004). Astin (1984) proposes that these activities will "enhance retention" (p. 523).

Tinto's Integration Theory and Astin's Theory of Student Involvement are closely associated; both imply that student success could be affected by the student's interaction with the institution. Tinto (1997) posits that students should be considered as an integral part of the education process, including academic decisions and social situations like academic organization on campus. Likewise, Astin (1984) assumes that a student's interaction with events, classroom and non-classroom events, will increase a student's chance of success.

#### Academic and Social Integration

Research has indicated that academic and social integration can enhance a student's success by stimulating the students' sense of belonging through interaction (Tinto, 1975, 2007; Townsend & Wilson, 2006). Conversely, the lack of integration into the college community, especially insufficient contact with members of the college, has been identified as the most important predictor of a lack of student success (Kraemer, 1997). A number of programs and policies were developed in an attempt to promote academic and social integration. Some of those institutional practices are: learning communities, first-year experience programs and seminars, freshman interest groups, and interaction between students and faculty outside the classroom (Townsend & Wilson, 2006). The intended outcomes of the institutional practices listed above are to promote student involvement and integration in an attempt to foster or boost student success (Pascarella & Terenzini, 2005; Tinto, 1993, 1997; Townsend & Wilson, 2006).



A major research focus for those who study college students' success has been to study GPA as one of the predictors for success and retention (DaDeppo, 2009). Academic integration, as well as GPA, past academic achievement, gender, race, socioeconomic status, and other factors is frequently considered by researchers as predictors for academic success and continued enrollment until graduation (DaDeppo, 2009). Further, a student's level of commitment to graduation could be positively affected by how academically integrated they are within the education process. Some researchers have proposed that the more academically integrated students are with the institution, the greater the students' commitment to success and graduation (Braxton & Hirschy, 2005; Seidman, 2005; Tinto, 1975).

Academic integration refers to the level of student interaction with faculty and the interaction with other students as it influences GPA, intellectual stimulation, and personal intellectual development (DaDeppo, 2009). DaDeppo (2009) proposes that academic integration focuses on a student's satisfaction with the institution's academic system and the student's perceived intellectual development and growth. He writes, for example, "the extent to which a student views his or her interpersonal relationships with faculty and peers on campus as promoting intellectual growth and development and influencing attitudes, beliefs, and values contributes to a students' academic integration" (DaDeppo, 2009, p.124). Positive or successful academic integration should increase a student's chances of being academically successful and thereby increase a college's graduation rate. Negative or unsuccessful academic integration should have the

opposite result. Mamiseishvili (2012) suggests that there are four variables associated with academic integration. Those variables are study group participation, having contact with faculty members in a social setting, counseling with academic advisors, and talking about academic issues with faculty members after class.

Tinto (1975) explained that academic integration consists of two dimensions. Structural integration is the first type of academic integration that relates to the student meeting the bench marks of the institution. Normative integration is the second type of academic integration that relates to the student identifying with values, customs, and beliefs of the institution (Coll & Stewart, 2008; Seidman, 2005).

Social integration refers to the interplay between the student and the institution's social systems, including, but not limited to, extracurricular activities, peer groups, and administration as well as faculty (Bean & Metzner, 1985; Braxton, Hirschy, & McClendon, 2004; DaDeppo, 2009). Bean and Metzner (1985) point out that social integration can be measured by the amount of participation a student has with extracurricular activities, the number of peer relationships established at the institution, and the student-faculty relationship outside of the classroom. Additionally, social integration is the mirroring of the institution's social community and the student's degree of agreement with the beliefs, attitudes, and values of that social community (Braxton, Hirschy, & McClendon, 2004; Seidman, 2005). Social integration can occur at the institutional level and within the subcultures of the institution (Seidman, 2005;

Tinto, 1975). Some researchers have found that the more socially integrated students are with the institution, the more committed they are to the college or university. (Braxton & Hirschy, 2005; Seidman, 2005; Tinto, 1975).

Mamiseishvili (2011) found that international student persistence at two-year institutions increased because of frequent meetings with academic advisors and frequent faculty interaction. Additionally, the study found that a lack of social integration would not negatively impact international student persistence. However, Mamiseishvili (2011) acknowledges that international students in this study may be involved in social activities outside the scope of the study. The significance of this study is that administrators and other community college leaders can develop programs that will focus on developing students' relationships with faculty and academic advisors (Mamiseishvili, 2011).

Braxton, Hirschy, and McClendon (2004) postulate that the amount of academic and social integration a student reaches will be driven by the student's initial commitment to the institution and to successful completion. Academic and social integration may be interconnected (Tinto, 1998). Students are more likely to remain in school and complete their objectives when both forms of integration are present (Stage, 1989). In some situations, one type of integration could enhance the other (Deil-Amen, 2011; Pascarella & Terenzini, 1991; Stage, 1989; Tinto, 1975, 1997). For example, it is possible for a student who is not performing well academically to continue in school because of social attachments. A student's social attachments enhance a student's study habits because he or she might study in a group or with a partner, thereby increasing his or her academic

performance. In a 2011 study, Deil-Amen reported that at the community college, academic integration was shown to be more meaningful than social integration.

Deil-Amen (2011) termed the interconnectedness of academic and social integration as the socio-academic integration process. The two-forms of integration often become “indistinguishable in the two-year setting” and the movement “was cited most frequently by students across all 14 two-year colleges as precursors to their persistence” (Deil-Amen, 2011, p. 82). According to Tinto (1997), the classroom is where integration occurs, and 26 years later, Deil-Amen (2011) proposed that classroom interaction is the dominant vehicle for integration (Deil-Amen, 2011). The instructor can schedule time for individualized communication and assistance for each student, which will enhance the students’ academic performance and validate their self-worth, increase their sense of competence and belonging, and strengthen their belief in their ability to succeed (Deil-Amen, 2011). According to Hu (2011), high levels of academic integration that are not accompanied by high levels of social integration, will negatively impact student success.

Deil-Amen (2011) indicates that the research on the effect of academic and social integration on student success is varied. Some research suggests that Tinto’s model is unreliable, especially when it is applied to nontraditional students or students at a non-residential commuter college or two-year colleges (Braxton, Hirschy & McClendon, 2004; Crisp, 2010; Deil-Amen, 2011; Seidman, 2005). This may be because residential institutions have a more defined social community, and students at non-residential commuter institutions have a defined

social community outside of the institution (Seidman, 2005). Tinto (2007) reported that although research has shown that academic and social integration is useful theoretical information, the way academic and social integration is implemented is more important.

### Student Involvement

Wang (2009) found that community college students are positively affected by the student's involvement in college, especially those students who transfer to a 4-year institution. Astin (1984) refers to student involvement as "the amount of physical and psychological energy that the student devotes to the academic experience" (p. 518). In other words, a student who spends time studying, is on campus often, time spent interacting with faculty, as well as students, and take part in student organizations, would be considered an involved student (Astin, 1984). There is corroborating evidence indicating that co-curricular and extracurricular event involvement is important to enriching the education experience of students (Astin, 1984; Busseri & Rose-Krasnor, 2008; Kuh, 2001; Pace, 1984). Busseri and Rose-Krasnor (2008) also suggested that these activities should be deliberate activities and have an academic, personal, and interpersonal purpose. Hu (2011) suggests that student involvement in educationally purposeful activities has some positive influences on student success.

Simply stated, it is important for the student to do more than just attend class; he or she should take a more active role in the class. Moreover, student involvement was also emphasized by Astin (1984), when he stresses the

importance of a student actively participating in the learning process. Astin (1993) suggested that there is a positive correlation between student success and the frequency of student and faculty or student and student interaction within the classroom and outside the classroom. Involvement can mean different things to different students, depending on the students' backgrounds (Tinto, 2007). Tinto (2007) also suggested that the classroom is often the only place where involvement occurs because, for community college students, it is perhaps the only place where the student will both interact with the faculty and their peers.

#### Academically Underprepared Students

The literature suggests that there is a misalignment between the requirements of a graduating senior and a college freshman student (Parker, 2007). Furthermore, the level of success achieved by a student during the first semester of college is often determined before the student completes high school. Unfortunately, an alarming number of students completing high school are academically and socially underprepared to successfully complete college level coursework (Parker, 2007). One of the strongest predictors of student success has been proven to be academic performance (Pascarella & Terenzini, 1991, 2005; Tinto, 1975; Wang, 2009).

Student academic underpreparedness refers to the gap that exists between the student's abilities and their knowledge, habits, and skills needed to complete college (Arkansas State Department of Education, 2006; Garvey, 2011). Students can be underprepared for college in many areas other than academics. They sometimes "lack college readiness skills in areas such as

financial literacy and are frequently unfamiliar with the general practices of college life, such as the importance of reading a syllabus and meeting due dates” (Sherwin, 2011, p. 3).

Kozeracki (2002) proposes that secondary schools have been condemned for not preparing students academically for postsecondary education. Strong American Schools (2008) also implied that high schools are not preparing students for postsecondary educational success. In their report, Strong American Schools (2008) suggests that even some students who successfully complete advanced placement classes in high school are required to enroll in developmental education courses during college. Consequently, some of those students who drop out of high school and later complete a General Education Diploma (GED) are believed to be even less prepared (Garvey, 2011). “These students may have met the minimum high school graduation requirements for mathematics, English, and other core subjects, but they are not adequately prepared for college” (Sherwin, 2011, p. 2).

Most higher education institutions have students enrolled who are underprepared for college and those students are among the most prone to not complete their college career (Crisp, 2010; Noel & Levitz, 1982). Therefore, educating the underprepared is important to all institutions as well as society in general and moreover, Parker (2007) suggested that educating the underprepared student has been viewed as one of the most challenging problems confronting higher education. Furthermore, the issue of academically underprepared students has received some national attention (Sherwin, 2011).

## Developmental Education

Some institutions of higher learning, in an attempt to reduce attrition, have begun offering developmental education programs. Accordingly, the need for developmental education could be the most difficult and one of the most important issues at the community college (Bailey & Cho, 2010). Develop is defined as the act or process of developing, maturing or the growth of a person, place or thing (Stein, 1980). With this definition in mind, developmental education is the act, the process, or the result of developing students, both academically and socially, to enhance their chance of completing a specific goal.

Developmental education is characterized by Boylan and Bonham (2007) as the activities and classes designed to help retain students and enhance the students' chances of matriculating to graduation. Developmental education is often viewed as a gateway to a better more productive life for students. The expectation of developmental education is that it will allow students to strengthen any weak academic areas in order for the student to transfer to a senior institution or graduate with their associate's degree (Barr & Schuetz, 2008).

The proposed goal of developmental education is to assist students with making the choices necessary for their success, by linking academic and student support services (Kozieracki, 2002). Additionally, Kozieracki (2002) stated that developmental education programs have previously employed tutorials, but have evolved to using curricula and computerized supplements to aid in the development of the student's academic ability. Successful college-level developmental education programs should be relevant to the students' personal



development (McCabe & Day 1998). Because of the increased attention researchers are showing developmental education, the transformation of developmental education is inevitable. Consequently, some developmental education programs offer a combination of pre-college, non-credit bearing courses along with some college-level, credit-bearing courses (Mazzarelli, 2010).

Vandal (2010) suggested that developmental education promotes a strong and stable link to a postsecondary degree. Colleges need to create developmental education systems that have some firm policies, customized to enable students to be quickly admitted to a college major. In an effort to positively affect retention rates, most community colleges require developmental education courses to academically and socially underprepared students. The community college's open door admissions policies make them uniquely suited to offering education for all students, regardless of their academic abilities (Boswell, 2004; Corbyn, 2011; Mazzarelli, 2010).

Byrd and MacDonald (2005) indicated that almost one-third of all community college students are required to take developmental courses. Additionally, the National Education Longitudinal Study of 1988 found that between 58% and 60% of first-time community college students took at least one remedial course (Bailey, 2009; Levin & Calcagno, 2008). Moreover, Bailey (2009) reported that 44% of those students took between one and three developmental education courses and 14% took more than three developmental education courses. The above statistic was based upon one institution's study, but nationally, approximately 41% of all freshmen "community college students and

29% of all entering students” (p. 22) need developmental education “in at least one of the basic skills of reading, writing, and math” (Byrd & MacDonald, 2005).

Strong American Schools (2008) reported that 80% of students enrolled in the Oklahoma Community College System required developmental education despite the fact that the average high school GPA was a 3.0 or higher for four out of five of those students. However, the need for developmental education implies that students are not being taught the skills necessary for college level work before they graduate from high school, and that they are coming to the institution underprepared. Therefore, developmental education courses are used to increase a student’s ability to complete his or her educational career. A report prepared by the Arkansas State Department of Education (2006) states that 66% of all professors completing a survey believe that remedial or development education courses are needed by over half of the freshman level students they teach. Yet, some administrators and faculty members are convinced that offering developmental education courses is like paying double for educating students. They “argue that taxpayers should not be required to pay twice for the same educational opportunities” offered by public high school and GED centers (Bahr, 2008, p. 422; Bahr, 2010; Handel & Williams, 2011; McCabe, 2000; Parker, 2007).

The need for developmental education courses has been a long-term requirement for many institutions, but can be costly to operate. For example, Chen and Cheng (1999) cited that it costs the City University of New York (CUNY) over \$1 million dollars to offer 70 freshmen-level developmental courses.

Researchers have reported that the estimated national direct cost of public postsecondary developmental education programs to be \$1 or \$2 billion dollars annually (Bahr, 2008; Bailey & Cho, 2010; Handel & Williams, 2011; Kolajo, 2004). The annual cost of developmental education at the community college was estimated to be \$1.8 to \$2.3 billion dollars (Strong American Schools, 2008). During economic hard times, greater numbers of people will choose to return to school and the influx of additional students will create a challenge because institutions may have to increase their staff to handle those students, particularly the large number of those students who will need some type of developmental education to ensure that they succeed.

The hidden cost of developmental education is what developmental education costs the students. Strong American Schools (2008) suggests, that the students lose academic momentum because they are being re-taught lessons they should have learned in high school. The report states that the students felt as if they were ready for college level work, and were both surprised and embarrassed to find that they were not considered college ready (Strong American Schools, 2008; Viadero, 2009). Another negative aspect of developmental education for some students is that often they have to take more than one developmental education course, which prolongs the amount of time it takes the students to be successful in their college career (Bailey & Cho, 2010; Collins, 2010; Handel & Williams, 2011; Parker, 2007; Strong American Schools, 2008).

Despite these reports, Saxon and Boylan, (as cited by Mazzairelli, 2010), suggested that the income generated from teaching developmental courses exceeds the expenses of offering the courses. This is encouraging information for community colleges, because they could be called upon to offer more developmental education courses.

Barr and Schuetz (2008) propose that with the support of the developmental education program, underprepared students can be as successful as those students who did not need developmental education. A plethora of possible developmental education programs are available for community college students. Therefore, creating an effective developmental education program is going to be individualized by the institution. There may be some similarities, but each institution will look differently according to the college's mission statement.

The overall effectiveness of developmental education programs has been related to the institution's choices concerning program structure, organization, and management matters as well as the "faculty having a clear understanding and commitment to the philosophy and objectives of developmental education" (Boroch et al., 2010, p. 20) at their institution. Faculty members who teach developmental education courses are in a position to make a significant contribution to student development, not just academically, but also socially.

Boroch et al. (2010), reported that there are two models of developmental education programs, the centralized model and the mainstreamed model. The centralized model is a structure in which all the developmental education services are offered in a specialized department for which the focus of the

department would be the delivery and success of the developmental education process. The advantage of a centralized developmental education process is that those who teach developmental education will be “highly motivated” to make sure the student succeeds (Boroch et al., 2010, p. 21). There is also a feeling of completeness within the student because they all feel as if they are all equally prepared as those students who do not need developmental courses. There may be both a perceived and actual treatment difference between students who need developmental courses and those who do not (Boroch et al, 2010). These students may feel as if they have a stigma placed on them.

The mainstream model proposes that the developmental education process should be integrated in the institution much like other courses offered by the college (Boroch et al., 2010; Edgecombe, 2011). The advantage of a mainstream developmental process is that it is more cost effective, and it takes away some of the “stigma” sometimes placed on students who are taking developmental courses (Boroch et al., 2010). Developmental education students that are not included in mainstream classes are sometimes treated differently by faculty and students.

Typical developmental education consists of courses such as mathematics, English, and reading, but because of increased attention or interest of institutions, developmental education has begun to include personal development as well as academic development. Just as there are a variety of ways of determining if a student requires developmental education, there are also a variety of different developmental education programs. Perin (2006)

researched the developmental education process at 15 colleges and found that some colleges had more than one developmental education process. According to Barr and Schuetz (2008), some of the programs created to enhance student involvement and integration are counseling, supplemental instruction, reading and writing centers, tutoring, supplemental instruction, and study skills courses. Institutional administrations and faculty propose that these programs will help to enhance the whole student, not just the intellectual part of the student.

The ways an institution chooses to determine if a student requires developmental education varies according to the institution. Some institutions use high school GPA, standardized test scores such as the American College Test (ACT) and the Scholastic Assessment Test (SAT), or entrance exam scores administered by the institution.

Bailey (2009) suggested that administrators should improve students' experiences in the classroom, enroll students in developmental courses, and reduce withdrawals from these courses if they want to improve developmental education programs. Couturie (2010) offers four suggestions for a successful developmental education process. The first suggestion is the development of "learning communities" (Couturie, 2010, p. 4) which has been well researched and has shown some promising findings. These communities are made up of a group of students who take at least three courses together. In the community college system, because of the dynamics of the student body, the classroom is extraordinarily suited for a learning community. Kingsborough Community

College reported that student integration had a positive effect on developmental education by increases the pass rate of courses after one semester.

The second suggestion is that “performance-based scholarships” (Couturie, 2010, p. 4) are awarded for consistent academic performance (two semesters) and meetings with counselors. Delgado Community College and Louisiana Technical Community College found these scholarships to be very successful. The third suggestion is “student success course and tutoring” (Couturie, 2010, p. 4). Students are required to take this two-semester course that is paired with tutoring. Chaffey College found these courses to have a positive effect by increasing credits earned and GPA while reducing academic probation. The fourth suggestion is “enhanced student services” (Couturie, 2010, p. 4) which is a \$15.00 stipend per semester for attending intensive counseling over two semesters. Lorain County Community College and Owens Community College reported higher rates of registration and credit hours earned among students who received intensive counseling.

Researchers are not united about the effectiveness of developmental education and whether developmental education can enhance the academic ability of a student and aide them to become successful (Collins, 2010). Studies are inconsistent in regards to their finding about the effectiveness of developmental education (Collins, 2010; Handel & Williams, 2011). Similarly, Adelman (2006) reported that only 49% of the developmental education students received a baccalaureate degree.

Dr. Raymund Paredes, the Texas Commissioner of Higher Education, on May 3, 2010 made the following statement: “As educators, we have to make the commitment to a very simple proposition: if we admit students to college, we should do everything possible to make sure they succeed” (Couturier, 2010, p. 2). Although Dr. Paredes was talking to the educators in Texas, all administrators and leaders should echo his statement in the community college system in America. It is the colleges’ responsibility to educate those students who enroll at their institution.

### Community Colleges

Community colleges are a portal to postsecondary education for many students. In 2004, community colleges enrolled almost half of all undergraduate students in the United States (Boswell, 2004). Furthermore, in 1988, the American Association of Community Colleges (AACC) reported that there were more than 1,160 community colleges in the United States and they have educated more than half of the nation’s undergraduates (AACC, 2012). The AACC (2012) website also reported that over 100 million students have attended community colleges. The AACC (2012) website reports that the number of community colleges in America has grown to around 1,200 to 1,600, for a total enrollment of 13 million students by 2009 (Corbyn, 2011; AACC, 2012).

According to Voorhees (2001), there were two guiding purposes for the creation of community colleges. The first purpose is that all education should respond to the needs of the society to have an educated workforce, and this will strengthen the general welfare of a capitalist society (Voorhees, 2001). The other



purpose is that community colleges should educate students in the first two years, so that the senior colleges or university can focus more on research and the actual professional education. According to Voorhees (2001), the community college system fills a variety of roles including: transfer programs; vocational and technical education; developmental and remedial programs; continuing education; community services; distance education; and workforce development.

Barr and Schuetz (2008) stated that community college administrators, staff and faculty should have the ability and the foresight to know how to accommodate the reality of the underprepared student. The strategic ability to accommodate the underprepared student is common and community college administrators, staff, and faculty may want to embrace and explore it at the institutional level (Barr & Schuetz, 2008). The National Center for Education reported that 99% of community colleges and about 75% of universities offer some type of developmental education (Boylan & Bonham, 2007).

Community colleges are defined by their curriculum structure; the following foci are often a part of the structure design. The first focus was the students' ability to transfer to the university and the second focus was the students' ability to get training designed to enable the student to be a functioning member of society (Cohen & Brawer, 2003). Moreover, Cohen and Brawer (2003) suggested that the original community colleges were branch campuses of universities, offering lower-division courses work and offering instruction strictly for collegiate grades.

The first public community college was established in 1892 by William Rainey Harper, the president of the University of Chicago in Illinois, where he convinced the Joliet School Board to add a thirteenth and fourteenth grade to the high school curriculum (AACC, 2012). The website also reported that in 1901, Joliet Junior College was officially founded, and its purpose was to focus on liberal arts education (AACC, 2012). Additionally, Harper's purpose for establishing the junior college was to provide the University of Chicago with academically capable students. The first two years were considered the academic school, and the last two years were considered the university school, but they later evolved into the Junior and Senior College (AACC, 2012). Community colleges, originally known as junior colleges, are referred to by several names such as city colleges, county colleges, and branch campuses.

Although the first community colleges were inspired by the need to provide academically prepared students to the university, there were some events in the United States' history that facilitated the growth of community colleges. The Morrill Acts of 1862 and 1890, also known as the Land Grant Act, introduced by Congressman Justin Morrill with the purpose of financing the agricultural and mechanical education for all classes of people (Young & Ewing, 1978). Specifically, each state was granted 30,000 acres of public land to be sold and the funds were to be placed in an endowment fund to support colleges in the states (Young & Ewing, 1978). Cohen and Brawer (2003), suggested that the act proved to be an important event in the history of higher education because it was the first time the federal government gave money to help fund higher education

and because it also caused a shift from classical studies to more applied studies, or preparation for the type of job duties which the students will face once they complete college.

In 1890, the Morrill Act was amended because the original act created problems within the education system. There was a provision within the original act that allowed states to set-up separate facilities for Blacks, as long as the facilities were equal to the facilities set-up for Whites. However, only two states opened separate institutions, Mississippi and Kentucky (Young & Ewing, 1978). Consequently, in the South, the original land-grant schools did not allow blacks to attend (Young & Ewing, 1978). The amended act stated that no money should be paid to any state for the support and maintenance of a college where a distinction of race or color was made in the admission requirements. The act made it possible for many blacks, who previously could not attend college, to be included in public higher education (Cohen & Brawer, 2003).

Between 1907 and 1917, legislators in California passed legislation that authorized high schools to offer postsecondary education, provided support of community college students, and established a community college system (AACC, 2012). The Smith-Hughes Act of 1917, also known as the Vocational Act of 1917, was introduced by Hoke Smith and Dudley Hughes and created vocational education in the areas of agriculture, trades and industry, as well as home economics (Young & Ewing, 1978). The legislation focused on vocation education and excluded or limited the academic education that these funds could be used for. It created a Federal Board of Vocational Education and state boards

designed to oversee the uses of these funds (Patterson, 2001). As a result, the act opened the door for millions of students to receive a vocational education at a public institution (Patterson, 2001). The Vocational Education Act was amended in 1963, 1968, and 1972, and these amendments boosted the amount of federal funds being received by the community college, and broadened the vocational curriculum, as well as provided services for disabled student and students with special needs (Cohen & Brawer, 2003).

Another major event happened between 1920 and 1921, when the American Association of Community Colleges, originally called the American Association of Junior Colleges, was formed as a forum for the nations' two-year colleges (AACC, 2012). The website states that in 1930, the *Community College Journal* was first published by the association (AACC, 2012). The next significant event in community college history was the Servicemen's Readjustment Act or the GI Bill of Rights in 1944 which provided financial assistance to veterans of World War II wanting to a post-secondary degree (AACC, 2012). According to Cohen and Brawer (2003), the GI Bill was the first large-scale financial aid package that made it possible for students to be reimbursed for tuition and living expenses if they are enrolled in college.

The Truman Commission Report of 1947 was commissioned by President Truman in 1946 to examine higher education and to give a common definition of higher education's responsibilities and is considered a significant event in the history of community colleges (Alexander, 1998). The report generated by the commission had six focus areas: establishing the goals; equalizing and

amplifying individual opportunity; arranging higher education; staffing higher education; financing higher education; and supplying resource data (Alexander, 1998). Moreover, the report called for the creation of a public community college network that would do several things such as reducing college tuition, serving as cultural centers, being inclusive in their program offerings, and serving the local community (AACC, 2012).

The results of the Truman Commission Report are the following six recommendations. The first recommendation was the improvement of high school education and that education should be available for all eligible youth. The second recommendation was that education through the fourteenth grade (a community college) should be available to everyone, similar to high school education availability. The third recommendation was that financial assistance should be provided to eligible students beginning in the tenth grade thru two years of college, especially for those students who would not be able to continue without financial assistance. The fourth recommendation was that there should a maximum limit on increasing tuition and fees at the universities, and lowering tuition for public colleges for graduate and professional schools, thereby helping deserving students with scholarships and fellowships to improve student success. The fifth recommendation was that adult education should be expanded and become the responsibility of colleges and universities. The sixth recommendation was that public education at all levels should be equally available to everyone, without regard to race, creed, sex, or national origin.

Finally, a major result of the commission report was that it caused two-year colleges to change their names to include the word community (AACC, 2012).

The W.K. Kellogg Foundation, in an attempt to enhance the leadership ability within the community colleges, announced a series of grants in 1960 to be used for training community college leaders (AACC, 2012). Consequently, 12 college leadership programs, known as the Kellogg Junior College Leadership Programs were established and provided education for hundreds of future deans and presidents (AACC, 2012). The University of Florida and Florida State University held a joint leadership program sponsored by the Foundation consisting of annual workshops; in-service training for professional staff; action research studies of basic information, community college best practices, and normative aspects of junior colleges; and pre-service training in the form of graduate research assistantships for high-potential students (Schultz & Wattenbarger, 1968).

Another very significant event in higher education history is the Higher Education Act of 1965 and its reauthorizations in 1968, 1972, 1980, 1986, 1992, 1998, 2006 and 2012. The original act was initiated as a part of President Lyndon Johnson's Great Society agenda with a purpose of making postsecondary education accessible to practically every American (Cohen & Brawer, 2003). These federal funds created scholarships, grants (Federal Pell Grants), and provided low-interest loans (Federal Student Loan Program) for students (AACC, 2012). Additionally, the original act was the second achievement in federal funding for student education, and it further broke down the economic and social

barriers and allowed millions of Americans to attend college (Cohen & Brawer, 2003). According to Cohen and Brawer (2003), community colleges did not begin to seek federal financial aid funding until after the 1972 reauthorizations of the Higher Education Act because the community college administration may have believed that the community college student did not need the funds.

Unfortunately, this was a misconception because often community college students are from the lower-income group and are the ones who need the most financial and academic help (Cohen & Brawer, 2003).

Therefore, community colleges in the United States often provide access to higher education for Americans who would not otherwise be able to attend college (Karp, Hughes, & O’Gara, 2008). They offer a wide range of services to students, such as transfer education, vocational and technical education, workforce training, general interest courses, life skills instruction, job skills training, enrichment opportunities, technical certification, recreational activities, and developmental education (Hoachlander et al., 2003; Hugo, 2012; Skolnik, 2011). Cohen and Brawer (2003) hinted that community colleges are receptive to the needs of its surrounding community and workforce because they have always adapted to the needs of the community. Skolnik (2011) posits that the advantages of the community college are access, opportunity and the potential benefit to the individual and society. Irwin (as cited by Mamiseishvili 2012), suggested additional benefits of attending a community college such as lower cost, transfer opportunities, smaller classes, flexible scheduling, focus on teaching, and a focus on student success.

The broad mission of the community college is to make education available to everyone regardless of the students' characteristics or the students' goals (Nitecki, 2011). The following characteristics often describe community college students: low income, academically underprepared, part-time students, working students, first-generation students, ethnic minority students, and students with family obligations (Astin, 1975, 1984; Corbyn, 2011; McCabe, 2000; Boswell, 2004; Nitecki, 2011; Perin, 2006; Price, 2004; Skolnik, 2011; Tinto, 1975, 1987; Townsend & Wilson, 2006).

The success of community college students received additional attention in 2009 when President Barack Obama unveiled his American Graduation Initiative (AGI), for the nation's community colleges (Kotamraju & Blackman, 2011; Viadero, 2009). According to Viadero (2009), the plan includes an initiative to increase the graduation rate at the community college by 2020 by increasing funding to community colleges thereby assisting these institutions with accomplishing President Obama's goal of increasing the number of American citizens with college degrees (Beaver, 2010; Corbyn, 2011; Kotamraju & Blackman, 2011; Viadero, 2009). Whereas supporters of the Initiative propose the importance of having a more educated society, critics suggest that the President is throwing money away by giving it to community colleges (Corbyn, 2011; Viadero, 2009).

Supporters argue that the community college is a vital part of the success of the American Graduation Initiative, because it is currently an important part of the education process within the United State (Kotamraju & Blackman, 2011).



The enrollment at the nation's community colleges is expected to increase in the next decade (Kotamraju & Blackman, 2011). Moreover, Kotamraju and Blackman (2011) proposed three reasons for the increased enrollment: the change in the United States' demographics, the offering of occupational programs, and the need for postsecondary education, but not a 4-year degree.

Based on the expected increase in enrollment, community college administrators and supporters may need to pay additional attention, however, to why students are not completing their educational goals. There are a lot of factors that would hinder community college students from successfully completing their community college education. Hoachlander et al. (2003) identified six of those things: delaying of enrollment from high school to college, part-time enrollment, obtaining a GED or certificate, working full-time, being a single parent or being responsible for someone other than themselves, and being a non-traditional student who is financially independent. Yet, when assessing the effectiveness of community colleges, Hoachlander et al. (2003) posits that holding community colleges accountable only for student graduation rates may seriously be underestimating the other contributions made by community colleges to student success. Among these contributions is the provision of developmental education which is not without its challenges.

Although some community colleges have been mandated to offer developmental education, many institutions are being asked to function with reduced state and federal funding. The lack of funding often serves as a deterrent to the institution offering additional courses, especially developmental

courses. State policy discouraging institutions from educating underprepared students could be working counter to the long-term interest of the state (Astin & Oseguera, 2005). Some institutions have reconsidered their investment in developmental education while others have decided to partner with private entities in an attempt to have a successful developmental education program.

Unfortunately, developmental education is a necessary part of community college course offerings until the alignment of high school and college freshmen preparedness is accomplished (Parker, 2007). In an attempt to simplify the problems encountered with developmental education, many states have considered creating policies and procedures that eliminate developmental education at the four-year institution and assign it to the community college (Parker, 2007). For example, California State University (CSU) and the City University of New York (CUNY) have policies in place in which students who are considered underprepared for college level courses are required to begin at the community college and then transfer to the senior institution (Parker, 2007). However, Parker (2007) also states that even with these policies in place, there is no evidence to support that developmental education at the community college is more successful than developmental education at the senior institution.

The following is a partial listing of some of the actions being taken to enhance developmental education in the United States as reported by the Education Commission of the States in 2010 (Vandal, 2010). The Lumina Foundation's *Achieving the Dream (ATD)* program works with community colleges in 22 states to reveal the challenges, if any, that developmental

education poses to states and institutional goals in relation to the increase of college attainment. ATD help to set up policies and practices that will assist community colleges increase student success. Additionally, the Bill and Melinda Gates Foundation, in an effort to aide remedial education, established the *Developmental Education Initiative (DEI)*, which awarded grants to 15 colleges of \$16.5 million. The initiative included six states that were to engage with in-depth change of developmental education strategies. The new *Developmental Math Initiative* created by the Carnegie Foundation for the Advancement of Teaching worked specifically with the challenging of changing developmental math instruction. In the 2010, President Obama signed an act called, *Student Aid and Fiscal and Responsibility Act*, to provide additional resources to community colleges to meet the needs of developmental education students (Vandal, 2010). Initiatives such as these have affected states' approach to community college missions, goals, and operations.

#### *Mississippi Community College History*

Community colleges in Mississippi were formed after the passage of Senate Bill 251 in 1922 that authorized high schools to begin offering college level coursework (Young & Ewing, 1978). According to the Pearl River Community College website, the bill was introduced by Dr. Julius C. Zeller, a Yazoo County Senator and it paved the way for community college systems to offer courses through "the state's fifty-odd agricultural high schools" (Young & Ewing, 1978, p. 3). There were two schools to take advantage of this bill. Pearl River County Agricultural High School in Poplarville began offering college level

courses in the 1921-1922 school year by offering college courses the semester before the law was passed and by enrolling thirteen students without the state's authority (PRCC, 2010) and Hinds County Agricultural High School in Raymond, began offering college level courses during the 1922-1923 school year. There are 15 community colleges in Mississippi as indicated by Table 1. The colleges are spread across the state to ensure that all Mississippi citizens would have access to higher education within driving distance of their homes (Young & Ewing, 1978). These colleges provide quality educational opportunity and training to the residents in the state at a low cost (Young & Ewing, 1978). Colleges are coordinated and supported by the Mississippi Community College Board (MCCB) which has been recognized as the first public community college system in the United States (Young & Ewing, 1978) and has been consistently ranked among the top in the United States (Barnes, 2013). According to the MCCB (2012) website, its vision is to foster an environment of excellence to promote education and job training and produce a better Mississippi. The MCCB (2012), reported that 2011-2012 enrollments at the community college totaled 84,195 students with 14,839 Certificates and Associate degrees awarded (Mississippi Community College Board (MCCB), 2012).

Table 1

*Mississippi Community Colleges*

Date Started	Original Name	Current Name	Location (Main Campus)
1921	Pearl River Co. Agricultural High School: Pearl River Jr. College	Pearl River Community College	Poplarville
1922	Hinds Co. Agricultural High School: Hinds County Jr. College	Hinds Community College	Raymond
1925	Holmes Co. Agricultural High School: Holmes County Jr. College	Holmes Community College	Goodman
1925	Harrison-Stone Agricultural High School: Perkinston Jr. College	MS Gulf Coast Community College	Perkinston
1926	Sunflower Co. Agricultural High School: Sunflower Jr. College	MS Delta Community College	Moorehead
1927	Kemper Co. Agricultural High School: East MS Jr. College	East MS Community College	Scooba
1927	Jones Co. Agricultural High School: Jones County Jr. College	Jones County Junior College	Ellisville
1927	Tate Co. Agricultural High School: Tate-Quitman Jr. College	Northwest MS Community College	Southaven
1928	Copiah-Lincoln Agricultural High School: Copiah-Lincoln Jr. College	Copiah-Lincoln Community College	Wesson
1928	Newton Co. Agricultural High School: East Central Jr. College	East Central Community College	Decatur

Table 1 (continued).

Date Started	Original Name	Current Name	Location (Main Campus)
1929	Pike Co. Agricultural High School: Southwest MS Jr. College	Southwest MS Community College	Summit
1937	Meridian Municipal Junior College: Meridian Jr. College	Meridian Community College	Meridian
1948	Itawamba Agricultural High School: Itawamba Jr. College	Itawamba Community College	Fulton
1948	Northeast Agricultural High School: Northeast MS Jr. College	Northeast MS Community College	Booneville
1949	Coahoma Agricultural High School: Coahoma Jr. College	Coahoma Community College	Clarksdale
1954	Utica Normal & Industrial Institute: Utica Jr. College	Hinds Community College	Raymond

Source: (Young & Ewing, 1978)

A couple of interesting facts are that Coahoma Community College is considered the first Negroes College in Mississippi and Utica Junior College was established in response to a race discrimination court case in 1982 and was later combined with Hinds Community College. Most junior colleges in Mississippi changed their name from junior college to community college, with one exception, Jones County Junior College, which chose not to change its name because the name reflects its mission (Young & Ewing, 1978). The other

colleges changed their names to better reflect the college mission and because they wanted to be more connected to the communities in their districts.

### Retention

A substantial number of college students fail to graduate from college each year. This failure could be related to students being academically underprepared for post-secondary institutions. As stated earlier, 25% of the students who drop out of school do so because they are academically underprepared (Tinto, 1993). For most institutions, a low graduation rate is also represented by the institution's retention rates. Retention exists at the community college when students remain at an institution until they graduate with a certificate or degree in their field of study, transfer to the senior institution, or enter the job market (Derby & Smith, 2004; Nitecki, 2011). A large number of students who are accepted by the community college are not ready for college level learning which has an impact on retention rates (Strong American Schools, 2008). Furthermore, academically underprepared students are one of the contributors to low retention rates at many institutions.

Retention rates are used to make inferences about the effectiveness of the institution or quality of education (Derby & Smith, 2004). They continue by indicating that during times of economic downturn, retention rates are being used to determine how much funding will be received from state and federal agencies (Derby & Smith, 2004). Summers (2003) also suggest that student retention has become a matter of economic survival for many colleges and universities.

Fike and Fike (2008) postulated that from an institution's perspective, student retention can be vital to the financial stability of academic programs. Graduation and transfer rates are what public policy makers, as well as the Federal Higher Education Act suggest be used to measure student retention and institutional effectiveness (Fike & Fike, 2008). The importance of students completing their degree at the first college they enroll in is indicted by the college's investment in a retention program (Astin, 2004).

Strong American Schools (2008) suggest that one of the most alarming problems with developmental education programs for underprepared students is that a large percentage of the students are not successful in college, students drop out without graduating. Their research indicated that only 29% of the students who graduated in 1992 and were required to take at least one developmental education course, graduated with a bachelor's degree (Strong American Schools, 2008).

The problem with attrition is not new, but has existed since the 1800's and continues to exist at most institutions of higher learning, the community college and 4-year universities alike (McCabe, 2000). Astin and Oseguera (2005) reported that only 59% of students entering college graduate within six years. For example, the national graduation rate for public 4-year institutions for those students who enrolled in 2001 and graduate by 2007 was 55%, according to the Southern Regional Education Board Fact Book (2009). During that same time, the national graduation rate for public two-year institution was much less at 20%. A report prepared by the Arkansas State Department of Education (2006) states



that 66% of all professors completing a survey submit that over half of first-time community college students are required to take developmental courses.

Young and Ewing (1978) reported that the University of Michigan began addressing the retention problem as it relates to underprepared students as early as 1856. Graduation from the first college a student enrolls in appears to be an important outcome, based on the significant resources colleges' administrators place in retention programs (Astin, 2004). Many institutions are creating programs to try to retain students. Tinto (1987) posits that the secret to successful retention lies in the college's commitment to the education of all its students, faculty, and staff members. The institutions are assuming "that strengthening instruction, programming, and student support will enable all students to improve, regardless of students' needs, aspirations, and life circumstances" (Levin, et al., 2010, p. 33). Regardless of Levin's, et al. (2010) statement, a good retention plan will consider the student's entire college situation, not just the academic.

Students enroll in college with different motivations or intentions. Makuakane-Drechsel and Hagedorn (2000) found that community college students might enter school for reasons other than obtaining a degree. Some students enroll for career advancement, career change, or vocational certification or just to improve a specific skill. Community college students and senior college students are affected by institution retention efforts; a positive effect at the four-year school may not have the same effect at the community college (Makuakane-Drechsel & Hagedorn, 2000).

According to Veenstra (2009), the most effective control an institution has over student retention happens during the student's freshmen year. As a result of research by Veenstra and others, many institutions have created programs to help retain students during the first year of their educational career. These developmental educational processes and programs are a function of the faculty, counselors, and especially administrators at any institution. Alkandari (2008) maintains that administrators have the responsibility of positively motivating students by providing an effective academic and non-academic environment that will facilitate student persistence with their studies and develop their personalities. These educational programs can also be instrumental in contributing to the success of all students, even beyond the freshman year. Some of the programs created to enhance a student's likelihood to persist to graduation are first-year experience, freshman year seminars, advising programs, tutoring programs, mentoring programs, remedial educational programs, and freshman developmental courses (Tinto, 1998; Veenstra, 2009).

The above listed programs are more likely to work better at a 4-year institution. However, in addition to these programs, community college leaders must be creative in their programs to retain students. They must consider the number of commuter students, adult students, and/or non-traditional students attending college. Community colleges have made some efforts to improve student success. Although, community college students do not interact or engage with the college through student activities and clubs at the same level as a university student, the potential exists to connect within the classroom, especially

within vocational program (Nitecki, 2011). It was suggested in a study conducted by Nitecki (2011) that relating studies to the students' career life creates interest and engagement in coursework because the students can see how their efforts and time will help with career success. The implication was that students would become more engaged leading to success, if they take courses related to their career choice (Nitecki, 2011).

Some top retention strategies, according to an Adams survey in 2011 for the American College Testing, Inc. are: first-year seminars, tutoring, advisory meetings, mandated course placement testing programs, and extensive learning centers or labs. Furthermore, Nitecki (2011) suggests the following as possible program elements to help enhance retention rates at the community college. First, community college administrators and leaders should support the college retention efforts by making advising and other services a priority, giving support with such things as financial support, additional compensation, release time, or reduced teaching loads for faculty and others. Furthermore, there should be the same level of support for all programs including the resources, faculty members, support staff, and training needed to ensure a positive experience for all students. Finally, Nitecki's (2011), report indicated that this might be a costly program, but administrators and community college supports should consider the financial implications as an investment in the long-term success of students.

Another example of an institutional retention program or initiative is the Online Student Portal Learning System, a Web-based program at Central Piedmont Community College in Charlotte, N.C. (Fischman, 2011). The college

integrated “learning-style and personality assessments” together in an online system for students to agree/disagree with or answer yes/no to 80 statements (Fischman, 2011, p. 3). The students received immediate feedback from the system, and the results of this assessment are in two parts, a chart indicating the characteristics of the students (e.g. introverted or extroverted and thinking or feeling personality) and three classifications of learners: auditory, visual, and kinesthetic or movement-oriented (Fischman, 2011). As a result of the online profile, Fischman (2011) also reported that Central Piedmont Community College increased retention rates from 60% to 70% to 87% from 2004 through 2008. Additionally, the online portal creates a record of information, which is accessible to the student for one term to the next term as well as accessible to counselors and instructors which will create an interaction between them and the student (Fischman, 2011). Furthermore, Fischman (2011) suggested that the online portal should not be considered the final answer for a student success, but that it should be the beginning of a conversation.

### Summary

After reviewing the literature, an important fact became clear. Educating the underprepared college student is of paramount importance. The goal of college leaders and administrators should be focus on student retention in order to aid with student success. There are several factors involved with student success, academic integration, social integration, student involvement, academic underpreparedness, developmental education, and retention.

Tinto's integration theory and Astin's theory of student involvement are closely related because both theories indicate that retention will be enhanced because of the way the students involve themselves in their education process and the institution as a whole. Sometimes, the non-academic components of an institution do not always receive the attention they need, especially at the community college, where a large portion of the students who attend are commuting non-traditional students. As suggested by Tinto (1993), the classroom will be the best place to have a profound effect on student retention. A change in faculty teaching habits from the traditional lecture driven to a more interactive teaching style could possibly help the students become more involved in their own learning.

Community colleges will play an important role in assisting with the education of some citizens. Because of their mission, community colleges spend a substantial amount of time and effort in developing strategies to help academically underprepared students improve their chances for success. Research in to how effective developmental education, academic integration, social integration and student involvement is best performed at the community college.

## CHAPTER III

### METHODOLOGY

#### Introduction

There are an overwhelming number of barriers to college completion, and there are several dilemmas that can impede the students' academic progression to graduation or degree obtainment (McArthur, 2005). Although community colleges are an important part of educating and training in the United States, community colleges are often ignored in higher education literature (Green & Ciez-Volz, 2010). Because community colleges are projected to be the continuing leaders in undergraduate enrollment, Templin (2011) points out that those innovative strategies must be developed to enhance rates of graduation. The objective of this research study was to use Tinto's Integration Theory and Astin's Theory of Student Involvement as a structure for assessing the relationship of academic integration, social integration and student involvement with student success at Mississippi Community Colleges. In addition, the rate of completion for developmental education students was compared with the rate of completion for non-developmental education students completing courses during the same period of time.

"Thirty years of research indicates that increased student success on campus can be achieved when the entire campus are involved" (Saladiner, 2011, p. 30). Community colleges employ 43% of faculty members in public higher education institutions (Twombly & Townsend, 2008). Barbatis (2010) reports 41% of all community college students are taking developmental education courses in

reading, English and mathematics. The study examined the characteristics and/or the best practices of developmental education faculty members and administrators reported to be important to the success of students taking developmental courses.

### Research Questions and Hypotheses

An essential responsibility of the community college is increasing student retention and achieving student success (Nitecki, 2011). This research project utilized the following research questions and hypotheses to aid in giving additional sources to help community college leaders, administrators, and faculty members fulfill their responsibility. There were two general research questions and three research hypotheses that guided this study.

#### *Research Questions:*

1. Are there instructional best practices related to the successful completion of developmental courses?
2. Is there a difference in the rates of graduation of students based upon developmental and non-developmental education status?

#### *Hypotheses:*

1. There is a significant difference in the faculty factor (interaction with faculty subscale and faculty concern for student development subscale) of integration of students at the community college based on developmental education and non-developmental education status.
2. There is a significant difference in the student factor (peer-group interaction subscale, academic and intellectual development subscale and

institutional and goal commitment subscale) of integration of students at the community college based on developmental education and non-developmental education status.

3. There is a significant difference in student involvement at the community college based on developmental education and non-developmental education status.

### Research Design and Data Collection Procedures

The concurrent mixed method was utilized in this study, delving into both quantitative and qualitative data (Creswell, 2009). This strategy allowed the researcher to combine qualitative data from community college faculty and administrators with quantitative data from community college students. The combination yields a more comprehensive result that was useful for the understanding of developmental education in decision making situations. The independent variable was developmental status (developmental or non-developmental) and the dependent variables were rates of completion, academic integration, social integration, and student involvement.

#### *Qualitative Component*

For the qualitative component of this study, the researcher conducted interviews with community college faculty and administrators connected with developmental education. The theoretical perspective of interpretivism was used to understand the faculty members and administrator's responses to the interview questions.



The researcher requested to conduct interviews at 6 out of 15 public community colleges, which were chosen based upon the college's geographical location in the state. Of the six colleges selected to be a part of this research project, five agreed to participate. A structured list of interview questions (Appendix A) was employed to ensure that each of the respondents was asked the same questions. A cover letter (Appendix B) explaining the purpose of the study, informed consent (Appendix C), what will happen with the data, the researcher's contact information and the Human Subject Review Committee statement was emailed to the chosen faculty and administrator 10 days prior to the date of the interview, and each interviewee was asked to complete the questions in writing before the set meeting. The researcher requested one faculty member and one administrator from five community colleges to be interviewed for a total of 10 interviews. The researcher requested that the interviewees were selected from the faculty members based on the section of developmental education they teach. For example, the interview was conducted with those instructors teaching the developmental English class. The other five interviewees were administrators chosen because of the direct connection with the developmental education process. The interview appointments were used as a follow-up to the written responses to make sure the researcher clearly understood the answers from those being interviewed. The follow-up interviews lasted no more than 30 minutes.

### *Quantitative Component*

Research hypotheses one, two and three were addressed with a questionnaire (Appendix D) that was administered to currently enrolled community college students analyzing the relationship between social integration, academic integration and student involvement. The research used the website of the chosen schools to identify the deans and/or vice presidents who could assist with choosing the developmental English course section and the English I course section to whom the questionnaire would be distributed. The sample sizes were controlled by the number of students registered in the chosen sections. Acknowledging that the courses would have a varying number of students in them, the questionnaires were simply administered to those students present when the questionnaire was given. Prior to the date the questionnaires were to be administered, the researcher made copies to be distributed to the class. The questionnaires were randomly color coded to ensure that the researcher did not confuse the questionnaires during the analysis segment of this study. A cover letter (Appendix B) explaining the purpose of the study, informed consent (Appendix C), what will happen with the data, the researcher's contact information and the Human Subject Review Committee statement were attached to each questionnaire. Participation was on a voluntary basis and the questionnaire took no longer than 30 minutes. No monetary or extra credit compensation was given to the students for completing the questionnaire.

Prior to requesting written permission to conduct this research from The University of Southern Mississippi Institutional Review Board (Appendix E), the

researcher submitted an application to conduct research at community colleges in the state from the President's Association from the Mississippi Community College Board. The President's Association is comprised of the presidents from all 15 public community college in Mississippi. In addition to the permission from the Board, each community college required individual permission to administer a survey and conduct interviews on campus. Written permission from the President's Association was granted as well as permission from five of the community colleges who agreed to be part of this research project (Appendix G). Written permission was granted all five of the community colleges (Appendix H through L).

#### Description of the Participants

The participants in this research study were full-time and part-time students, faculty and administrators, from all 15 community college within the state. The participants represented both genders and varied racial/ethnic groups. The researcher assumes that the sample was heterogeneous because of the diversity of the community college student population. Participation was voluntary and the questionnaires and interviews were conducted at the main campuses of the five chosen colleges. Colleges were chosen by their geographical location in the state. The researcher was attempting to represent the opinions and views of across the community colleges in the state. The participants were those students registered during the Summer 2014 and Fall 2014 semesters, and the sample of students completing the questionnaire were confined to the developmental English course section and the English I section. The courses were face-to-face

sections only, with no online sections considered. The developmental English course was chosen over the developmental mathematics course because the literature suggests that students taking developmental writing and reading courses complete the course more successfully. Bailey (2009) pointed out that the data from the 1988 National Education Longitudinal Study indicates that 68% of students pass developmental writing; 71% passed developmental reading while only 30% passed developmental math courses.

For the qualitative portion of this study, a selection of five faculty members and five administrators from those community colleges surveyed were interviewed. The faculty members were those teaching during the Summer 2014 and Fall 2014 semesters. The faculty members were the instructors of the developmental English sections to which the questionnaire was administered, and administrators were selected according to their duties involving developmental education.

### Population and Sampling

The primary goal of this research project was to explore the instructional-led best practices of developmental education, rates of completion in developmental education courses and explore the relationship between integration, and student involvement within community colleges. The target sample for interviews was faculty members in the developmental education department and an administrator at each chosen public community college in Mississippi. The target sample for the questionnaire included currently enrolled

community college students at five community colleges who agreed to be a part of this research project.

### Instrumentation

Based upon the mixed method strategy of this research study, there were two separate instruments as well as data from the Mississippi Community College Board. The data from the Mississippi Community College Board indicated the completion rate of students taking developmental education courses.

#### *Qualitative Components*

The researcher developed a list of interview questions based on student integration and student involvement literature reviewed for this research study. The list consisted of 13 questions and was intended to take the interviewee no more than 40 minutes to complete. The interview questions were pilot-tested and none of the faculty members or administrators who participated in the pilot-tested were allowed to participate in this study.

#### *Quantitative Component*

*Institutional Integration and Student Involvement Questionnaire.* The researcher used a modified institutional integration and student involvement questionnaire to administer to students by merging the Institutional Integration Scale (IIS) and the Student Involvement Questionnaire (SIQ) (Baker, Caison, & Meade, 2007; French & Oakes, 2004). The questionnaire contained 38 of the items. The items are separated as follows: items one through six were devoted to demographic information. Next, items seven through fourteen addressed Faculty

Factors (academic integration) with two subsets, interactions with faculty subscale (items 7 through 10) and faculty concern for student development and teaching subscale (items 11 through 14). Finally, items 15 through 30 addressed Student Factors (social integration) with three subsets, peer-group interaction subscale (items 15 through 21), academic and intellectual development subscale (items 22 through 26), and institutional and goal commitment subscale (items 27 through 30).

The original coefficient alphas for the five subscales were as follows:

Interaction with faculty = .89, Faculty concern for student development and teaching = .88, peer group interaction = .84, academic and intellectual development = .82 and institutional and goal commitment = .76 (Baker, Caison, & Meade, 2007; French & Oakes, 2004). The confirmatory factor analysis indicates all parameter values were in the appropriate ranges (French & Oakes, 2004).

Integration into the institution is considered an important factor of student retention and success. The Institutional Integration Scale (IIS), developed by Pascarella and Terenzini (1980), was based on Tinto's (1975) integration theory (French & Oakes, 2004). The scale is a "students' self-reported level of academic and social integration" (Breidenbach & French, 2011, p. 340) and is comprised of 30 items within five subscales (French & Oakes, 2004).

*Student Involvement.* Student involvement was the final part of this research study. Astin (1999) cited five basic postulates in his theory of student involvement: it refers to the investment of physical, intellectual, and emotional energy in various objects, involvement occurs along a continuum, involvement

has both quantitative and qualitative features, student learning and personal development associated with any education program is directly proportional to the quality and quantity of student involvement in that program, and the effectiveness of any educational policy is directly related to the capacity of that policy to increase involvement. Based upon these postulates, the researcher developed the Student Involvement Questionnaire (SIQ), items 30 through 38 to use for the student involvement section of the questionnaire. The questionnaire was pilot-tested to address its validity and reliability. The pilot-test was conducted at the Forrest County Campus of Pearl River Community College in Hattiesburg, Mississippi. None of the students who participated in the pilot-test were allowed to participate in this study.

### Data Analysis

#### *Qualitative*

A set of interview questions were used to collect qualitative data from faculty members and administrators. Interpretivism was used in an attempt to understand the responses from faculty members and administrators. The questions were coded to reveal any themes or patterns found embedded in the answers. The intent was that the final result would be a list of the best practices or characteristics. These best practices/characteristics could possibly aid college administrators and faculty members in building an effective developmental education system.

The qualitative data were analyzed using the following six steps; getting a sense of the whole by reading the answers to the questions carefully, identifying

text segments with brackets, assigning a code word or phrase to describe the meaning of the text segment, making a list and grouping the code word, reviewing the answers, and reducing the code to themes then putting similar codes together to form a listing (Creswell, 2005).

### *Quantitative*

The researcher analyzed the information received from the Mississippi Community College Board by comparing archival data indicating the institution's rates of completion between 2009 and 2011. A comparison was made between developmental education students and non-developmental education students and the data presented in chart form.

Additionally, the researcher administered a questionnaire to currently enrolled community college developmental education and non-developmental education students from five community colleges in the state of Mississippi. These data were analyzed through a multivariate analysis of variance (MANOVA). The MANOVA is a statistical test comparing the population means of several groups along more than one variable (Mertler & Vannatte, 2004). The statistical test used a p-value for each dependent variable, indicating if the differences and interactions were statistically significant (Mertler & Vannatte, 2004).



## CHAPTER IV

### RESULTS

The results of this concurrent mixed method research are presented to correspond to both qualitative and quantitative components of the study. Qualitatively, the research explored instructional best practices related to the successful completion of developmental courses from the vantage point of the faculty and administration. Quantitatively, the research was examining the rates of completion for students taking developmental education courses as well as examining the relationship between academic integration, social integration, and student involvement at community colleges in Mississippi.

Several research questions and hypotheses guided the investigation.

Research Question 1: Are there instructional best practices related to the successful completion of developmental courses?

Research Question 2: Is there a difference in the rates of graduation of students based upon developmental and non-developmental education status?

Hypotheses 1: There is a significant difference in the faculty factor (interaction with faculty subscale and faculty concern for student development subscale) of integration of students at the community college based on developmental education and non-developmental education status.

Hypotheses 2: There is a significant difference in the student factor (peer-group interaction subscale, academic and intellectual development subscale and institutional and goal commitment subscale) of integration of students at

the community college based on developmental education and non-developmental education status.

Hypotheses 3: There is a significant difference in student involvement at the community college based on developmental education and non-developmental education status.

### Sample Descriptive

#### *Qualitative Components*

Research question one was addressed with ten interviews of five developmental education faculty and five college administrators who supervise developmental education instruction. The interviewees consisted of eight women and two men with over 180 years of combined experience in the developmental education field. As indicated by the Table 2, the interviewees held a variety of positions within the community college system, such as vice presidents, deans, department directors and faculty members.

Table 2

#### *Demographic Characteristics of Interviewees with Pseudonym*

Name	Male/ Female	Race	Years of Experience	Position
Susan	F	White	20	VP of Instruction
Jane	F	White	22	Developmental Ed Faculty Member
Mary	F	White	11	Developmental Ed Faculty Member

Table 2 (continued).

Name	Male/ Female	Race	Years of Experience	Position
Ruth	F	White	35	VP of College Parallel Programs
Ginger	F	White	10	English Department Chair/ Faculty
Hillary	F	White	14	Developmental Ed Faculty Member
John	M	Black	35	Dean of Instruction
Robert	M	White	12	Developmental Studies Chair/Faculty
Betty	F	White	15	VP of Instruction Services
Ethel	F	White	14	Developmental Ed Faculty Member

Each interviewee was given a 13 item questionnaire in advance of a face-to-face interview. Some interviewees submitted the answers to the questionnaire before the face-to-face interview while others completed the interview questionnaire and submitted the answers at the face-to-face interview. One of the interviews was conducted via phone because of scheduling conflicts between the administrator and the researcher.

#### *Quantitative Component*

The sample used for this study included a total of  $N=186$  students from the five selected community college. The sample was composed of 79.6% freshmen, with an equal distribution of males and females. Of the 186 students completing

the survey, 66.7% had taken at least one developmental education course during their college enrollment. The students were enrolled in developmental English or English Comp I during the Summer 2014 or Fall 2014 semesters. The students were asked to complete the Modified Institutional Integration and Student Involvement Questionnaire. Table 3 indicates the demographic information for the students who voluntarily completed the questionnaires.

Table 3

*Student Demographical Information*

		Frequency	Percentage
College Classification	Freshmen	148	79.6%
	Sophomore	38	20.4%
Gender	Male	93	50.0%
	Female	93	50.0%
Race	Black	94	50.5%
	White	79	42.5%
	Asian/Pacific Islander	7	3.8%
	Hispanic	4	2.2%
	Other	2	1.1%
GPA	4.0	9	4.8%
	3.0 and up	43	23.1%
	2.0 and up	33	17.7%
	1.0 and up	3	1.6%
	Below 1.0	2	1.1%
	Unknown or Just started	96	51.6%
Developmental Education Status	No Developmental Education Courses Taken	62	33.3%
	One or More Developmental Education Courses Taken	124	66.7%

## Assumptions

### *Qualitative Results*

*Research Questions One: Instructional Best Practices.* Interpretivism was used in an attempt to understand the responses from the faculty members and administrators. Creswell (2005) recommended that the interview transcripts be read, analyzed and coded to reveal any themes or patterns found embedded in the answers. The coding process required the transcripts be grouped into categories that formed principal themes. After reviewing transcripts from interviews, the research found six principal themes or patterns. Those principal themes gleaned from the individual interviewees as interpreted by the researcher are found in Table 4.

Table 4

### *Principal Themes*

---

#### Principal Themes from Administration and Faculty Interviews

---

1. Curriculum
    - a. Collapsing of Courses
    - b. Accelerated Courses
    - c. Course Alignment/Sharing of Material
    - d. Paring of Courses
    - e. Self-paced vs. semester based
    - f. Grouping by Age
  2. Monitoring
    - a. Notices of Absences
    - b. Grades
  3. Campus Resources
    - a. Counseling Centers
    - b. Writing Labs and Success Centers
-

Table 4 (continued).

---

Principal Themes from Administration and Faculty Interviews

---

4. Communication
    - a. Establish Relationships (Student/Faculty and Student/Student)
    - b. Proactive Communication
  5. Connections
    - a. Academic Integration
    - b. Social Integration
    - c. Student Involvement
    - d. College Student Identity
    - e. Mentoring
  6. Governance and/or Financial Aid
    - a. Responsibility
      - i. Shared
      - ii. Community College
      - iii. Student
    - b. Repeating Courses
    - c. Financial Aid
    - d. Cost of Developmental Education
- 

The researcher found some prevailing themes among all of those interviewed. The interviewees unanimously agree that developmental education can enhance a student's chance of successfully completing their courses and ultimately graduating college. Betty stated that "developmental education builds a foundation of success; allows the institution to offer open instruction or self-paced instruction and finally, it can alleviate student anxiety."

#### Theme 1: Curriculum

During the interpretation of the interviews, the researcher found that, as indicated by Morrissey and Liston (2012), placement in developmental or non-developmental courses when students enter college, is a critical step to their

successful completion of college. Curriculum refers to those instances in which a faculty member or administrators referenced the importance of classroom activity, such as sharing of material between courses, how courses are being taught, and/or which courses will be taught was important to the developmental education process. The researcher further reduced this central theme into six additional-focused themes.

### *Collapsing of Courses*

Several of those interviewed were a part of the Mississippi Community College Developmental Education Taskforce, which recommended that intermediate English and Reading be combined into one course. After several months of research, the Taskforce, which is discussed in chapter five, made a number of recommendations, but the collapsing of courses was the most discussed and controversial. Some of those interviewed supported the recommendation. Robert stated:

decreasing in the number of courses and streamlining of the curriculum will benefit the developmental education, as its students will still get the much needed boost from the classes while at the same time shortening the time to degree for these same students.

The interviewees could be suggesting that the combining of these courses will have a positive effect on developmental education and the developmental education student's success in college overall. Susan agreed with Robert and stated that combining the reading and writing courses means that fewer students can opt out of one of the courses so students with low ACT scores in English

automatically get help with reading as well. Furthermore, Susan said that the combination meant that the reading and writing processes reinforce each other for the developmental student.

On the other hand, some of those interviewed were opposed or not sure about the combination. One of the strongest statements against this combination came from Hillary who said that “they (reading and writing) are cousins, not twins.” She explained that reading and intermediate English offer similar material, but they do not teach the same thing. Students’ ability to read could affect their ability to write more than their ability to write affects their ability to read. Hillary created a name for this new course, “Ringlish,” which is another indication of how strongly she feels about the combining of these courses. Mary agreed with Hillary, stating that she feels that reading and writing are different things that work together, but there is a gap between them. Hillary, who is a developmental English instructor, additionally revealed her disapproval over the process of combining the developmental English course and the reading course. She said that it was “rather insulting to the ‘on-the-frontline’ troops” not be a part of the decision making process. Hillary went on to say, “we had outside forces control the courses with very little input from the instructor level.” Finally, Ginger found a positive side to removing courses. She said that,

by removing these courses, we remove some of the possible exit points for students to drop out of our programs. While the course work might be more challenging for students, a quicker path to graduation before financial aid runs out is very important as well.



*Accelerated courses*

The second subtheme identified by the researcher was accelerated courses which refer to courses which can be completed within an eight-week period as opposed to the full sixteen in a normal fall or spring semester. The interviewees suggested that offering accelerated courses which students can complete the developmental education courses and the gateway courses during the same semester could assist students stay on track with their college career. Ginger and Betty proposed that accelerated courses allow students to complete a course faster and they can complete more than the one course during a semester. Betty went on to state that “the more credit bearing courses a student completes, the more likely the student will graduate.”

In contrast, some of those interviewed did not believe that accelerated courses would be beneficial to developmental education students. Ethel stated, “I understand that time is of the essence, and they need to move on, but too much too fast is not a good option.” Developmental education students need time to complete the developmental education courses to ensure that they are ready for freshmen level courses. The implied belief is that these students need more long term attention to be successful in developmental education courses as well as regular college courses. Mary indicated that she believed that “students with limited academic skills will not necessarily benefit from an increased pace in their developmental education course work, in fact it could negatively impact them if they are expected to cover too much course content at once”.

One of the Mississippi community colleges began offering an accelerated course in Intermediate English/Reading and English Comp I. Developmental education student have the opportunity to complete the Intermediate English/Reading course during the first 8 weeks of the semester and then enroll in English Comp I for the last 8 weeks of the semester with the same instructor. The advantage of having the same instructor is that the student does not have to learn a new instructor's teaching style, as well as the fact that the student is already comfortable with the instructor.

#### *Course Alignment/Sharing of Material*

This subtheme refers to the suggestion that there should be an alignment between developmental education courses and gateway courses as well as the sharing of course material among the courses. One of the community colleges in Mississippi suggested a partnership between the faculty member in developmental English/Reading and those in College Success courses as a way to show how the courses are interrelated. The faculty agreed to share course syllabi, lesson plans, and/or projects. Mary gave an example of this process when she stated that “an English instructor, a Reading instructor, and a Sociology instructor are sharing material and working together to better retain students enrolled in the Sociology course.” John stated that students can feel like developmental education is not a part of their “college education”, but the institution fights this impression by tying some developmental courses to non-developmental courses and having the faculty team teach the courses. The interviewees shared the belief that by team teaching the course, faculty members

will collaborate about the subject matter for the courses and make sure they correspond to each other.

### *Paring of Courses*

This subtheme is similar to course alignment, but it refers to the practice of linking two courses together in an attempt to improve academic integration and ultimately improving student success. The major difference is that the faculty did not team teach. The paring of courses with faculty members complements the work assignments for each class. The belief is that the pairing of courses will reinforce the course's material such as writing course material being based on reading course material. Mary inferred that all students, but particularly developmental students, need to see the connection from one course to the next. Additionally, Hillary believes that developmental education students should be given similar assignments as those in regular courses or the gateway course. She gave the following example: using the same grading rubric in developmental English courses as the one used for English Comp I courses, but allowing the developmental student to revise their papers more times than regular students. Mary provided an additional example stating that at her institution they offered paired classes, such as math paired with study skills to promote academic integration.

### *Self-Paced vs. Semester Based*

Self-paced courses refer to courses where the student works at his/her own pace to complete a set of modules for a course. These students have the option of completing their courses over more than one semester. Traditionally,

post-secondary institutions offer semester-based courses in which a student has a set amount of time to complete the assignments of the course. Most semester based courses are 16-week courses. Similarly to other subthemes, the interviewees were split on their beliefs about the value of offering self-paced courses as evident by the statements below. Mary stated that “self-paced courses meet more often and cause the student to be more focused. It allows the student to progress at a faster pace and allows the student to complete courses quicker thereby graduating sooner.” Graduation is the ultimate goal for most students who enter college. Robert believes essentially the same thing as Mary; “allowing students to work ahead and finish early is ideal, as it encourages students to push themselves to succeed and increases the likelihood that they will finish their associate’s degree.” Unlike Mary, Robert indicated that he believes that self-paced courses would be the most beneficial to developmental education students because the students are in control of how much material they cover. The students have the opportunity move quickly through the material they understand or slow down when they need additional help.

Only one of the 10 interviewees believes that developmental education courses should only be offered on a semester basis. Mary stated that some students do not work or learn as quickly as others; they would never complete assignments or overall courses if they did not have deadlines. My experience with developmental student has shown typically that the students lack organizational skill and motivation. They often need the pressure of guidelines and deadlines to motivate them.

Mary indicated that she believes that all developmental education students learn at the same pace and would fail if left to their own motivation.

Additionally, there were those interviewed who believe that both types of courses should be offered. They indicated that students are different and will learn at different paces. Some students will have a hard time with assessment tests while others may not have tried to succeed on the day they were tested. Ruth stated that “both types need to be offered, some students will thrive in some environments and other will need something different. Some instructors will be more effective with one or the other delivery methods.” Hillary went a step further and said,

some developmental education courses should be self-paced, such as math with a self-paced module which allows the student to complete over a semester if necessary or complete early during the semester. The student has the control. But others, such as English, require more of a progression and improvement through multiple skills at the same time. Things such as grammar, composition, research, critical reading, and thinking are all taught at the same time in English.

Ethel and Hillary suggested that self-paced courses create “havoc” with scheduling as well as with the admission and register’s office. It is also logistically hard for books stores to plan books for self-paced courses; oftentimes they have too much inventory on hand.

### *Grouping by Age*

Those interviewed were almost unanimous in their opinion about this subtheme. Nine of the ten interviewees believe that students should not be grouped by age. Susan was the only one who believed that grouping “may make the older student less apprehensive in the class.” Others, such as Robert, stated that “from a social aspect, grouping by age would allow for more cohesive group interactions, but having students from a variety of ages grouped together would probably allow for a more diverse view of the course content and ultimately benefit each student.” Jane’s belief is that “combining different age groups aids in student success; younger students tend to have technology experience, whereas older students bring work and/or life experience to the table.” Hillary agrees with the others stating that “in her experience non-traditional students become supported by the younger students”, while “the younger students learn to admire and emulate the non-tradition students.”

### Theme 2: Monitoring

Monitoring refers to the way the community colleges track the progress of students during the semester, especially developmental education students. This monitoring includes not only the tracking of progress, but also the way students are informed of being in academic trouble.

### *Notice of Absences*

Developmental students often require more non-academic assistance. This subtheme indicates the way the institution ensures that students attend classes regularly. The community colleges in Mississippi have an attendance

policy for their students. An example of one institution's policy is that a student can miss a class, double the time class meets per week. That means if the class meets on Monday, Wednesday, and Friday, the student can miss class six times during the semester before the instructor will remove them or drop them from the class roster. Once the student has been dropped from the class roster, it is entirely up to the faculty member if they will allow the student to return to class and be readmitted. Mary stated that at her institution, "notices of absence are sent to students in danger of missing too many days; these are warnings to make students aware of their accrued absences in hopes of discouraging further ones." Ethel stated that in addition to letting a student know that there is a danger of them being dropped from the class, her institution takes a proactive approach and instructors meet with the students about absenteeism as well as their grades.

### *Grades*

This subtheme refers to the placement of students, the students' progress in a course and how that progress affects their overall success in post-secondary education. Student grades are monitored during the course as well as looking at their overall completion rates. The interviews suggest that something as simple as being proactive and keeping the students aware of their grades at all times, could cause a positive effect on completion rates of both developmental and non-developmental education students. Robert believed that "a common starting point is helpful from an instructor standpoint to get a baseline of data regarding a student's ability level and prior knowledge." Mary stated that the developmental

education faculty at her institution “identifies the one or two major grammatical errors that a student is making so that she/he has a focal area rather than a mass of errors to face that are overwhelming.” She goes on to explain her reasoning for opposing combining reading and writing by indicating that instructors do not have time to adequately teach the meaning of word or statements as well as other things like grammar, comma placement.

### Theme 3: Campus Resources

Campus resources refer to the types of services which an institution offers to help students, both those who are disadvantaged and those who are not, succeed at college. Additionally, this finding encompasses the actions that faculty, professional staff and/or administrators do to ensure the proper placement of students. Ruth stated that resources will be needed to get students connected to the institution and continue learning. This finding group was further reduced to two subgroups.

#### *Counseling Centers*

Counseling centers are a common resource on most college campuses. These centers provide help for many different things ranging from academic counseling to psychological counseling. Mary states that they encourage developmental education students to use all of the resources on campus and ensure the students have the knowledge of what services are available as well as where they are located. Developmental students often are unaware of the services available because they are too busy trying to take care of the other issues in their life. Robert suggested that it is imperative that they have proper



placement in their developmental education courses to be sure that students receive the appropriate level of remediation, while not spinning their wheels in the courses that are too low for their ability level. Effective counseling could be an important part of student success.

### *Writing Labs/Success Centers*

This subtheme refers to types of services institutions have established to aid in the success of students. Ginger stated that at her institution they have a Student Success Center which works closely with students who are having difficulties and provide “At Risk” advising. Betty’s institution also has a process called Computer Assisted Instruction (CAI), which allows the faculty member to have more one-on-one instructional time with students by allowing faculty to function as a facilitator of the learning process. Additionally, Jane’s institution uses the Pearson Lab Tutorial Services to help developmental education students. Students have access to an iPad or computer to complete their work. All of the institutions, where the interviews were conducted, have some type of lab or center within the institution to aid all students, developmental and non-developmental, be successful.

At Mary’s institution, they frequently check on student progress. The example she gave was that “the Writing Center was working on ways to encourage more students to use the center, as well as making sure the students understand why the center is important to their progress.

#### Theme 4: Communication

Communication makes reference to the relationship between students, faculty, and administrators. This subtheme included statements about the importance of relationships between student and faculty or between student and other students.

##### *Establish Relationships*

This subtheme identifies the times when the interviewees stated that interaction between students and faculty or between students and other students is important to student success. Ethel stated that their faculty members talk with students about their grades and classroom performance to ensure that the student is aware, at all times, of their grades and attendance. The dialog between faculty and student indicated to the student that the faculty expects the student to be successful.

One way to establish healthy relationship between faculty members and students would be by giving the students an important role in the classroom or within an academic club or organization. Mary states that when an instructor has “students fill important roles in the classroom or on the college campus it helps the students overall success.”

##### *Proactive Communication*

The other type of communication indicated by the interviewees refers to the communication about a student’s academic weaknesses. Mary states that at her institution, faculty work with students one-on-one to discover their specific academic issues that may be holding them back from success. Furthermore,

when students indicate to a faculty member that the student is feeling overwhelmed, the faculty members are encouraged to contact the counseling center, with the student, and then keep track of the students' progress.

Proactive communication can refer to student-to-student communication as well as that between faculty and student. Robert said, that “standalone developmental education classes provide a forum for like-minded student with similar abilities to work together to achieve the goal of being college ready.”

#### Theme 5: Connection

Connection explores the way integration and involvement enhances student success. This theme is closely related to Tinto's Integration Theory and Astin's Theory of Student Involvement because it indicates what the interviewees have to say about integration and involvement. Similar to the literature, interviewee statements indicate that they feel that academic and social integration and student involvement are essential to the success of college students.

##### *Academic Integration*

The researcher, for the purpose of coding this section into different themes, defined academic integration as involvement in activities connected to the classroom, including such things as study groups or group assignments. Robert believes that “at the classroom level, it is important that faculty connect with each student on a personal level so that a relationship can be built and fostered; this connection will mean that a student is less likely to give up.” He went on to indicate that developmental education courses provide a forum for

like-minded students with similar abilities to work together to achieve the goal of being a successful college student. Additionally, Jane echoes Robert's statement saying that "academic integration is helpful because it places students in courses that are at their academic level so that they can be successful without losing confidence."

### *Social Integration*

Social integration was defined as any student involvement with social activities such as athletic events, social non-academic club or groups, or going to on-campus events that do not have any academic incentive. Social involvement often indicates a commitment to the institution (Braxton & Hirschy, 2005; Seidman, 2005; Tinto, 1975). John stated that social integration "helps to remove the negative stigma some have of developmental education. If students fit in, they are more comfortable in their surroundings." Additionally, John believes that social integration "fosters success." According to Mary, because some developmental education students feel limited and as if they are not fully engaged in the college process (because they may not be taking college-credit courses), they need other activities to make them feel a part of the college experience.

The interviewees proposed the idea that there is a negative side to social integration. This negative side becomes evident when too much socialization hinders academic success. Ruth stated that in a group she was involved with social integration had a negative side when the students became "hyper-bonded"

and attempted to take over the class with negative behaviors that took away from the learning process.

### *Student Involvement*

Student involvement was defined as student participation in academic clubs, events which have an academic incentive such as grade points for going to the event, and being a part of an academic team. Astin (1984) surmises the importance of faculty and administrators understanding the importance of student involvement to student graduation. The prevailing theme of this group of comments was that student involvement is essential to student retention. Ruth stated that “this maybe the most effective” process at an institution, “but it takes more resources and time to get each student into something outside the classroom and keep them connected to the school to continue learning.” Ginger indicates her agreement with Astin (1984) by saying that “student activities make college more fun and help with student retention. The need to maintain a good GPA in order to be eligible to participate is a tremendous motivator.”

### *College Student Identity*

This subtheme details the statements of the interviewees about how students can find their identity. Hillary states that

when a student successfully completes a developmental education course it encourages them to take other courses; they become self-motivated; it reinforces their work ethics; aids with retention; and the student becomes a recruiter for the college. In short, it changes their identity or view of themselves.

Mary indicated that through campus activities and events, students form or gain their college student identities and they build confidence, which can influence them to work harder in their coursework in order to remain part of the college overall. Furthermore, Ruth stated that “there are many students in developmental education who are smart but don’t know it; developmental education courses give them the chance they need to break out.”

### *Mentoring*

Tinto (1998) and Veenstra (2009) indicate that mentoring is one of the programs that should be used to contribute to the success of all students beyond their freshmen year. Mary stated that at her institution “developmental education often provides mentoring, tutoring, career counseling, etc.” Some institutions have added an extra step to their mentoring processes as indicated by Ruth, who said that the “feedback from the mentors has been very encouraging concerning the things the mentors have been able to help students get through to stay in class.” Her institution assigned mentors to their students during the first semester. The ratio for this assignment was on a one (staff or faculty member) to three or four (students) bases.

### Theme 6: Financial Aid and/or Governance

Financial aid and /or governance explored the premise of who is responsible for the developmental education process. The literature indicated that the financial aid funding of developmental education was a major issue in offering developmental education at community colleges.

### *Responsibility*

*Shared responsibility* refers to those statements about developmental education that indicate that the responsibility lies with more than one person or group. Bettye stated that she believes that

within the institution, it is a shared responsibility between the administration and the faculty. Outside the institution, it is hard to decide. Ideally, the student should come to the community college ready for college work, but they do not. Developmental education should not be at the post-secondary level, but because of outside forces such as backgrounds and socioeconomic factors, the high school will always fall short of making it happen.

Hillary, on the other hand, believed that the responsibility is shared in a more even manner: “33% individual instructors who teach the courses; 33% state and/or national guidelines or government; and 33% individual college institutional effectiveness office and department chairs.” It is interesting to note that she did not include the student in her responsibility break down. Additionally, Mary stated that the state must take responsibility if an overwhelming number of developmental students enter college each year; the number is a reflection of elementary and more specifically, secondary education. Interestingly, she did not include the post-secondary instructors in her breakdown.

*Student responsibility* indicates those statements which reflect a belief that the student is responsible for his or her own developmental education. Betty had a lot to say on this subject and stated that

the students carry the most weight in terms of responsibility. If they want to succeed, they have to see where they are in their educational process, seek help to identify their weaknesses and be highly motivated to pursue their goals. Ultimately, instructors are helpless if the students will not commit to the learning process.

There is an abundance of reasons why students need to be remediated. In some cases, the secondary school system has offered everything the student needs to be successful as a college student, but the student decided not to participate.

*Community college responsibility* refers to those instances when interviewees stated that the developmental education process is the responsibility of the community college. Betty's opinion of who should be responsible for developmental education is reflected in her statement that, by default the community college will have to offer developmental education, but they often lack funding. The university is not always equipped to offer the courses and the courses are often taught by graduate assistants or those faculty members who do not speak good English.

An additional justification was given by Robert who stated that developmental education should be the responsibility of the community college system because a large portion of their population is the non-traditional student who has been out of high school for a while. In a utopian society there will be no need to reeducate students coming directly from high school.



### *Repeating Courses*

Often developmental students do not complete the courses they register for and have to retake the same class several times. This subtheme reflects those comments that concern how the interviewees felt about students who have to retake a course and about who should be responsible for paying for that course a second time. The literature indicated that most opponents of developmental education do not like it when tax payers have to pay for students to be re-educated on material the students should have been taught in high school (Bahr, 2008, p. 422; Bahr, 2010; Handel & Williams, 2011; McCabe, 2000; Parker, 2007). Ethel stated that “students should be allowed to repeat a course if they pay for it themselves without financial aid or scholarships.” Likewise, Betty stated that “I do not believe we should pay double for a student to retake a course, but it depends on the circumstances of why the student is retaking the course.” Robert, on the other hand, offered an additional reason why a student would need to retake a course. He stated that

students should need no more than two attempts at the same class for successful completion. I would not advocate allowing students more attempts; however, if they cannot complete the course material in two semesters then they were probably incorrectly placed in the course to begin with.

This statement indicated that it may not be the student’s ability that has caused him or her to not complete the course, but the unrealistic expectations of college

personnel. The possibility exists that the student was ill advised when registering for courses.

### *Financial Aid*

The common type of financial aid used by students is the Federal Pell Grant program which is limited to 12 semesters (or six full-time semesters) for the life of the student (Boyd, 2014). Many of the students who are taking developmental education courses are also students who are also receiving Federal Pell Grants as a means of paying for school. Lessening the number of developmental education courses required by the student will create a quicker path to graduation before a student's financial aid runs out. Mary stated that "developmental education is financially draining to the state and federal financial aid systems as well as discouraging students because of the lengthiness of the developmental education process." Ginger's comments also indicate that financial concerns are important to the developmental education process. She said, "students stay in school longer and the developmental education courses are not transferable, but they are counted when determining hours for courses completed for financial aid."

### *Cost of Developmental Education*

Because of reduced funding from the governmental agencies and the students earning less income, the cost of developmental education has received a lot of attention. This subtheme refers to what the interviewees stated about how much developmental education costs the community colleges. Ginger said that the changes in the Mississippi Community College developmental education

system have the potential to decrease the time to complete, thereby decreasing the cost of developmental education. Betty indicated her agreement with Ginger by saying “reducing student time to graduation will reduce the cost of developmental education.”

In conclusion, the interviews contained a wealth of information that in some instances lined up with the literature presented earlier in this project. Only one interviewee, Ethel, predicted the total dissolution of developmental education. She believes that “developmental education across the state of Mississippi will end soon. Students will be placed into regular classes without proper training and they will fail faster. Retention and graduation rates will drop.” The remainder of those who were interviewed indicated that they do not feel as if developmental education can be dissolved. They suggested that education leaders, secondary and post-secondary, should move past blame and look for the best solution to offering this much needed process.

### *Quantitative Results*

*Research Question Two: Rates of Completion Based upon Education Status.* Graduation rates for each institution were to be made available by the Mississippi Community Colleges Board. The data were to be requested in two groups, one included those students who took a developmental education course and one included those students who did not take a developmental education course. A comparison was to be made of the groups to understand if one group graduated more often than the other. An individual consent form from each student would not be necessary because archival data were utilized in the study.

Permission from the President's Association of the Mississippi Community College Board was obtained instead.

Research question two could not be addressed as stated because the Mississippi Community College Board (MCCB) could not supply the data they originally expected to be able to supply. Unfortunately, the graduation data received by the MCCB from the community colleges is in a more general form, not broken down into groups. In lieu of the data requested, the researcher was directed to the "College Report Card" that each college is required to have present on their websites. According to the Mississippi Gulf Coast Community College website (Dixon, 2013), the report card is a part of the transparency measures required by the Mississippi House Bill No. 2071 approved during the 2010 legislative session. The House Bill created the Education Achievement Council, its purpose was to setting the "education achievement goals for the state and to monitor progress toward those goals through required institutional and state report cards" (West, 2012). The college report cards offer some descriptive information about developmental education across the community colleges in Mississippi. Dixon (2013) explains that the information on each report card is specific to the institution as well as giving information about the community college system as a whole.

The college report cards are three-page reports offering plenty of information about individual institutions as well as the Mississippi Community System as a whole. For the purpose of this research project, the researcher used only the information about developmental education. Based on the individual

institutions report cards, the following descriptive information was available.

Table 5 gives descriptive information based on 2011-12 academic school year enrollments for all community colleges in Mississippi.

Table 5

*Community College Enrollment and Developmental Education Enrollment*

<b>College Name</b>	<b>Total Enrollment</b>	<b>1<sup>st</sup> Time Full Time Students**</b>	<b>Enrollment All Developmental Courses**</b>	<b>Develop Math</b>	<b>Develop English</b>	<b>Develop Reading</b>
Coahoma Com Col	3,660	673	212 31.5%	189 28.1%	117 17.4%	78 11.6%
Copiah-Lincoln Com Col	5,068	873	636 72.9%	578 66.2%	429 49.2%	203 23.3%
East Central Com Col	3,768	858	425 49.6%	277 32.3%	188 22.0%	11 13.4%
East MS Com Col	6,993	701	383 54.7%	318 45.4%	253 36.1%	250 35.7%
Hinds Com Col	17,533	2,626	1,649 62.8%	1,330 50.7%	985 37.5%	278 10.6%
Holmes Com Col	9,696	1,200	809 67.5%	755 63.0%	475 39.6%	143 12.0%
Itawamba Com Col	8,990	1,450	1,045 72.1%	956 66.0%	487 33.6%	303 25.3%
Jones Jr Com Col	6,568	1,356	801 59.1%	785 57.9%	397 29.3%	0 0.0%
Meridian Com Col	5,390	1,093	566 51.8%	506 46.3%	325 29.8%	49 4.5%

Table 5 (continued).

College Name	Total Enrollment	1 <sup>st</sup> Time Full Time Students**	Enrollment All Developmental Courses**	Develop Math	Develop English	Develop Reading
MS Delta Com Col	4,607	719	497 69.2%	456 63.5%	356 49.6%	176 24.5%
MS Gulf Com Col	14,457	1,984	774 39.1%	620 31.3%	366 18.5%	45 2.3%
Northeast Com Col	4,591	1,238	826 66.8%	760 61.4%	347 28.1%	191 15.5%
Northwest Com Col	11,552	1,751	1,226 70.1%	1,147 65.5%	628 35.9%	282 16.1%
Pearl River Com Col	6,861	1,219	712 58.4%	645 53.0%	426 35.0%	282 23.2%
Southwest Com Col	2,833	672	415 61.8%	342 50.9%	253 37.7%	112 16.7%

\*\* Students taking

\*\* Students taking one or more developmental courses.

Note: All data used to compute percentages were taken directly from the College Report Cards, as it was reported from the individual institutions.

The total percentages of the first-time, full-time students enrolled in one or more developmental course(s) range from 31.5% at Coahoma Community College to 72.9% at Copiah-Lincoln Community College. The average percent of students enrolled in one or more developmental courses for colleges represented above was 59.7%. The total percentages of developmental students enrolled in developmental math range from 28.1% at Coahoma Community College to 66.2% at Copiah-Lincoln Community College. The average across the

community colleges of students enrolled in developmental math was 52.5%. The total percentages of developmental students enrolled in developmental English range from 17.4% at Coahoma Delta Community College to 49.6% at Mississippi Delta Community College. The average across the community colleges of students enrolled in developmental English was 32.8%. The total percentages of developmental students enrolled in developmental reading range from 0.0% at Jones County Junior Community College to 35.7% at East Central Community College. The average across the community colleges of students enrolled in developmental reading was 13.7%.

The college report cards are required to report the college preparedness of students who are enrolled in developmental courses. Table 6 gives information about students' college readiness based on a Fall 2010 cohort and 2010-2011 academic school year enrollments for all community colleges in Mississippi.

A student's successes in a developmental course were defined by the student completing the gateway course that the developmental course should have prepared the student to complete. With that being said, successes in developmental math were determined by the completion of Intermediate Algebra or College Algebra. Consequently, successes in developmental English were determined by the completion of English Composition I. As indicated by the table below, the total percentages of first-time, full-time students enrolled in developmental math and then went on to successfully complete intermediate algebra or college algebra ranged from 53.1% at Southwest Community College to 100.0% at Coahoma Community College. The average percentage across all

the community colleges of those students who successfully completed intermediate algebra or college algebra was 72.9%. Furthermore, the total percentages of the first-time, full-time students enrolled in developmental English and then went on to successfully complete English Composition I ranged from 18.8% at Jones County Junior College to 60.0% at Coahoma Community College. The average percentage across all the community colleges of those students who successfully completed English Composition I was 36.5%.

Table 6

*Developmental Course Completion Percentages of Individual Community College Enrollment as well as the Community College System Enrollment (N=16,480) in Developmental Education*

College Name	1 <sup>st</sup> Time Full Time Students**	Develop Math Enrollment	Develop Math Success - College Algebra	Develop English Enrollment	Develop English Success - English Comp I
Coahoma Com Col	278 1.7%	168	187 100%	110	66 60.0%
Copiah-Lincoln Com Col	912 5.6%	517	492 95.2%	395	177 44.9%
East Central Com Col	572 3.5%	385	376 97.7%	213	51 24.0%
East MS Com Col	556 3.4%	305	184 60.4%	251	67 26.7%



Table 6 (continued).

College Name	1 <sup>st</sup> Time Full Time Students**	Develop Math Enrollment	Develop Math Success - College Algebra	Develop English Enrollment	Develop English Success - English Comp I
Hinds Com Col	2,204 13.4%	1,234	807 65.4%	970	324 33.4%
Holmes Com Col	1,312 8.0%	818	665 81.3%	494	171 34.7%
Itawamba Com Col	1,886 11.5%	1,195	838 70.2%	691	245 35.5%
Jones Jr Com Col	1,411 8.6%	952	583 61.3%	459	86 18.8%
Meridian Com Col	810 5.0%	497	302 60.8%	313	105 33.6%
MS Delta Com Col	895 5.5%	496	284 57.3%	399	141 35.4%
MS Gulf Com Col	968 5.9%	672	558 83.1%	296	160 54.1%
Northeast Com Col	1,186 7.2%	824	542 65.8%	362	155 42.9%
Northwest Com Col	1,835 11.2%	1,214	1,058 87.2%	621	308 49.6%
Pearl River Com Col	1,116	676	437	440	141
Southwest Com Col	539 3.3%	313	166 53.1%	226	81 35.9%

\*\* Students taking one or more developmental courses.

Note: All data used to compute percentages were taken directly from the College Report Cards, as it was reported from the individual institutions.

### Pilot-Test of the Modified Institutional Integration and Student Involvement *Questionnaire Results*

Because the questionnaire was a combination of multiple questionnaires, a pilot-test was required to provide evidence for reliability and validity. The pilot-test was conducted at the Forrest County Campus of Pearl River Community College in Hattiesburg, MS. None of the students pilot-tested were allowed to later participate in this study. The questionnaire was administered to an English I course and a developmental English course taught during the spring 2014 semester. There were 19 completed questionnaires collected. The Cronbach's Alpha for the "Faculty Factor" subscales (items 7 through 14 on the questionnaire) was  $\alpha = .760$ . The Cronbach's Alpha for the "Student Factor" subscales (items 15 through 30 on the questionnaire) was  $\alpha = .897$ . Finally, the Cronbach's Alpha for the "Student Involvement" subscales (items 31 through 38 on the questionnaire) was  $\alpha = .703$  on five items, excluding question number 33, 34, and 38.

A multivariate analysis of variance (MANOVA) was completed to compare the population means of the "Faculty Factors" scale, the "Student Involvement" scale and "Student Involvement" scale. The MANOVA indicates the overall model was significant for the three scale combined,  $F(3,14) = 3.910$ ,  $p = .032$ . The univariate analysis indicated that the developmental status (DevelopEd) did not make a difference in the faculty factor scale. Similarly, the student factor scale was not significantly different based on developmental status. However, the

student involvement scale were different based on the subgroup,  $F(1, 16) = 7.480, p = .015$ .

#### The Modified Institutional Integration and Student Involvement

##### *Questionnaire Results*

The questionnaires were administered during the Summer and Fall of 2014 with a total of 186 questionnaires being completed. Prior to the test, the following variables were recoded: the “Developmental Education Courses Taken” variable was changed into the DevelopEd variable, those equal to 1 were recoded as 0 and those equal to 2 or more were recoded as 1.

*Hypotheses 1: Faculty Factor-Interaction with faculty subscale and faculty concern for student development subscale.* The Cronbach’s Alpha for the “Faculty Interaction” subscales (items 7 through 10 on the questionnaire) was  $\alpha = .754$ . The Cronbach’s Alpha for the “Faculty Concern” subscales (items 11 through 14 on the questionnaire) was  $\alpha = .740$ . A multivariate analysis of variance (MANOVA) was completed to determine the difference the Faculty factor based on DevelopEd category. The MANOVA results revealed no significant difference as a function of Develop Ed status on dependent variables, Faculty Interaction and Faculty Concern, Wilks’ Lambda  $\Lambda = .984, F(2, 183) = 1.528, p = .220$ , multivariate  $\eta^2 = .016$ . Table 7 outlines the means and standard deviations for the Faculty Factor subscales based on developmental education status.

Table 7

*Means and Standard Deviations for Faculty Factor Subscales*

Faculty Factor Subscales	No Developmental Courses Taken		One or More Developmental Course Taken	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Interaction	3.383	.7598	3.592	.8598
Concern	3.927	.5786	4.062	.6186

*Hypotheses 2: Student Factor (peer-group interaction subscale, academic and intellectual development subscale and institutional and goal commitment subscale).* The Cronbach's Alpha for the "Peer Group Interaction" subscales (items 15 through 21 on the questionnaire) was  $\alpha = .831$ . The Cronbach's Alpha for the "Academic and Intellectual Development" subscales (items 22 through 26 on the questionnaire) was  $\alpha = .793$ . The Cronbach's Alpha for the "Institutional and Goal Commitment" subscales (items 27 through 36 on the questionnaire) was  $\alpha = .748$ . A multivariate analysis of variance (MANOVA) was completed to determining the difference in the Student Factor based on the DevelopEd category. The MANOVA results revealed no significant difference for the DevelopEd category on the dependent variables Peer Group Interaction, Academic and Intellectual Development, and Institutional and Goal Commitment, Wilks' Lambda  $\Lambda = .965$ ,  $F(3, 182) = 2.175$ ,  $p = .093$ , multivariate  $\eta^2 = .035$ . Table 8 presents means and standard deviations for the Student Factor Subscales based on developmental education status.

Table 8

*Means and Standard Deviations for Student Factor Subscales*

Student Factor Subscales	No Developmental Courses Taken		One or More Developmental Course Taken	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Peer	3.530	.6010	3.759	.7311
Academic	3.787	.6144	3.903	.6667
Goal	4.403	.6212	4.580	.5963

*Hypotheses 3: Student Involvement.* Finally, the Cronbach's Alpha for the "Student Involvement" subscales (items 31 through 38 on the questionnaire) was  $\alpha = .833$ . Unlike the pilot test, the entire item set was utilized in determining the Cronbach's Alpha. A one-way ANOVA was conducted indicating a significant difference between the DevelopEd category and the Student Involvement subscale. Within the Develop Ed category,  $F(1,184)=5.259$ ,  $p=.023$ , there were significant difference for the student involvement subscales. Table 9 presents the means and standard deviations for student involvement based on developmental education status.

Table 9

*Means and Standard Deviations for Student Involvement Subscales*

Student Involvement	No Developmental Courses Taken		One or More Developmental Course Taken	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Involvement	2.828	.9286	3.148	.8810

## CHAPTER V

### SUMMARY

Developmental education is an important part of the community college system. It was created to provide support to the academically underprepared college student helping them obtain a post-secondary degree (Hodara, 2014). This mixed method study focused on developmental education at community colleges in Mississippi. The purpose of this study was to 1) identify the best practices from faculty members and administrators related to the successful completion of developmental education, 2) compare the rates of completion for developmental education to non-developmental education students for 15 community colleges in Mississippi, and 3) explore the relationship between academic integration, social integration, and student involvement with overall success by surveying currently enrolled community college students at five of the Mississippi Community Colleges.

This study's theoretical framework was based upon Astin's Theory of Student Involvement (1975) and Tinto's Model of College Student Retention (1993). This study was conducted to explore the attitudes, opinions, and/or beliefs about the importance of academic integration, social integration, and student involvement within the developmental education system as well as to systematically investigate the completion rates of students enrolled in developmental education.

This study employed a mixed methods model. To answer the first qualitative research question, personal interviews were conducted with

administrators and faculty members at five of the public community colleges in Mississippi, using a standard set of the interview question. A total of 10 faculty members and administrators were interviewed for this study. The researcher interpreted the interview transcripts and coded them to reveal common themes. The final results are presented as a set of ten best practices for developmental education.

To answer the quantitative research question, the researcher used public archival data from the public community colleges in Mississippi. This public archival data, the College Report Cards, was found on the Mississippi Community College Board for all 15 public community colleges in Mississippi and it was analyzed to generate percentages of those students who successfully completed developmental courses. To address the three hypotheses, the, Modified Institutional Integration Questionnaire and the Student Involvement Questionnaire was administered at five of the public community colleges in Mississippi.

## Findings

### *Qualitative*

Academic integration, social integration and student involvement were the guiding principles in this study. Based upon the interviews conducted at the selected community college, seven out of ten said that academic integration was the best predictor of student success. The combined statements from Mary, Robert and Ruth, best represent the common themes stated by the interviewees:



academic integration was the most effective in the classroom. It showed how the content in the class relates to other classes as well as with life in general. The time the instructor spends with the student make the class more personal and it cause more interaction between the student/student and student/faculty. Furthermore, academic integration requires a commitment from the student especially when working on group projects. The student takes ownership of the learning process.

Of the six common themes that emerged during the interviews at community colleges, four factors can be controlled by the institution and be useful in developing effective policies and procedures. The remaining two are more in the student's control. From the six common themes derived from the interview transcripts, the researcher proposes the following 10 best practices:

1. Developmental education students should be placed in regular academic, credit-bearing courses as soon as possible. A mixture of developmental courses and credit-bearing courses may lead to the best results. The researcher believes this is extremely important, especially since the developmental education student has started out behind those students who do not need remediation.
2. Developmental education courses should be self-paced with deadlines and guidelines to motivate students to complete the courses. A self-paced format will allow students to work ahead and finish early, thereby encouraging students to push themselves to succeed and increase the likelihood of degree obtainment. The researcher agrees with those

interviewed who stated that all developmental education students lack the academic ability to complete courses. There are other factors, such as an unexpected major illness during the high school student's senior, which may have caused the student to be underprepared for college level courses.

3. Developmental education course offerings should include some accelerated-pace courses as well as some full time courses. Not all students will learn at the same pace, nor will they all learn using the same format. The researcher believes that those interviewees who oppose accelerated classes do so because they do not feel as if the student will receive the type of focused help they need to be successful. Additionally, faculty members, counselors, and administrators "need to serve different students differently" (Handel & Williams, 2011, p. 31),
4. Developmental education students should be strongly encouraged to become involved academically with the college. This will require institution officials to identify academic clubs and organizations, as well as offer study groups and events that have some academic value. For example, an academic honor organization could be offered for developmental education students.
5. Developmental education courses should be aligned with non-developmental education courses. This will help with academic integration by allowing the students to make a connection with the courses required for the completion of their program of study. The process of pairing

courses and/or team teaching courses where course material is shared could also help students make the connection from one course to the next.

6. Developmental education students should be socially involved with non-academic activities on campus. This will require the institution to have activities that appeal to the students while creating a sense of community among the students. This could be especially hard for students at branch or commuter campuses.
7. Developmental education students should have intense one-on-one counseling concerning their plan of study. The researcher feels that proactive communication from the counselor will make the students feel as if the institution is interested in them graduating and not just the student's tuition money. Some students have already taken courses they do not need to graduate with their chosen degree. Proper placement is important to make sure the students do not waste their time and financial aid.
8. Developmental education students should be tracked by the faculty. Communication between the faculty and the student will indicate to the student how important it is for the student to complete the course-work.
9. Developmental education students should be mentored by a faculty or staff member. As suggested by one of the interviewees, the faculty could be assigned three to four students at the beginning of the semester. Students will mentor each other once they understand the importance of sharing information with each other.

10. Community colleges should take ownership of the developmental education process. The researcher is of the opinion that the responsibility for offering developmental education is shared with the student (because of their willingness to learn) and the post-secondary institutions because of the number of underprepared students needing to be educated. The results of the interviews suggest that students, especially non-traditional students, cannot go back to high school to be remediated, and the university is not as well equipped to assist these students as is the community college. Administrators and school supporters should accept the reality of developmental education and begin to focus on the needs of the students instead of the institution (Handel & Williams, 2011).

The next step for administrators, faculty, and legislators might be for additional research of community colleges outside of Mississippi. This research could focus on developmental education programs that were created to foster student success. Those programs could possibly be replicated in the community colleges in Mississippi.

### *Quantitative*

The success of students enrolled in developmental education at community colleges in Mississippi is an indication of the success of the community college, not just the student. The quantitative research question examination revealed that an average of 59.7% of those enrolled in one of the Mississippi public community colleges during the 2011-2012 took one or more developmental courses. The average participation separated by developmental

courses was: Developmental Math=52.5%, Developmental English=32.8% and Developmental Reading=13.7%.

The data further indicated that 52.5% of all first-time, full-time students were required to enroll in developmental math at the community college in Mississippi, 32.8% needed to enroll in developmental English, and 13.7% needed to enroll in developmental reading. After enrolling in developmental courses, 72.9% of the students in developmental math completed intermediate algebra or college algebra and 36.5% of the students in developmental English completed English Composition I. Based on these percentages, it may be concluded that community colleges have more success remediating underprepared students with developmental math than they do with developmental English. The finding above is different from Bailey's (2009) results that indicate a 68% completion rate in writing and 30% completion rate in math.

When examining hypotheses one and two, this research indicated that there was not a difference between developmental and non-developmental education students as pertaining to the faculty subscale, including the faculty interaction with the students, the faculty's concern about the students' development, interaction with peer groups, academic and intellectual development, and institutionally and goal commitment. Based upon the survey responses, these things are important for the successful completion of both developmental and non-developmental education students. On the other hand, when examining hypotheses three, the research indicated that there was a difference between the involvement of developmental education students and

non-developmental education students. Developmental education students indicated that they are more involved with outside activities than the non-developmental education students.

### Discussion

Developmental education is a part of the Mississippi community college system and will remain so for a long time. The qualitative and quantitative portions of this study complement each other on some issues. Evidence of the importance of academic integration, social integration, and involvement was found within the interview responses and the responses on the surveys. The researcher believes that through academic integration, social integration and student involvement as well as the other themes indicated during the interviews, a student can redefine themselves. The researcher also believes that course completion and college success liberates a student and gives them a glimpse of the future.

The responses to the interviews highlight the necessity of student integration and student involvement to the success of developmental education courses as well as college success. During the interviews, a lot of the faculty and administrators indicated that accelerated courses and self-paced or semester based courses could be used to aid in student success. The College Report cards revealed that developmental math students are more successful than developmental English students. Based on that information, the students enrolled in developmental English courses could benefit from self-paced courses with some proactive communication from the faculty members to help keep the

students on task. The researcher found that developmental education students and non-developmental education students indicate that faculty interaction and concern about them have a positive effect on their success. The researcher believes it is important to understand the influence of faculty interaction with students because it is hard to have an effective plan for success, if you do not know where to start. It is hard to understand a student's academic preparedness without interacting with the student. Some of those interviewed also discussed the importance of faculty connection and interaction with students. Furthermore, the research results indicate that the peer-group interaction subscale, academic and intellectual development subscale, as well as institutional and goal commitment subscale have a positive effect on the students success. According to these data, faculty members are treating developmental education students and non-developmental students the same.

Student involvement, on the other hand, was not equivalent between the developmental and non-developmental students. Developmental education students were more involved with outside activities than non-developmental education students. Things such as involvement with cultural events, meeting with faculty outside of the classroom or attending study groups outside of class were not as common among non-developmental students as they were among developmental students. Astin's Theory of Student Involvement posits an association between student involvement and academic achievement (Astin, 1999). The study's findings provide some support for this statement, even though there are dissimilar results between groups, involvement is important to the

success of students. The interviewees also indicate the importance of student involvement with the college because it could make the student feel like he or she belongs at the college and not like just a body or a number. It can be argued that the reason the non-developmental students are less involved is because they are more comfortable with their college experience. For example, non-developmental students may not attend study group session outside the classroom because they understand the material as it is presented in the classroom and does not need additional help. During the interviews, one faculty member talked about the idea of developing an academic honor organization specifically for developmental education students. The researcher believes, based on the results above, that an organization created for developmental student could increase student success.

#### Implications for Policy and Practice

The study indicated that over half of first-time, full-time students entering the Mississippi community college during the 2010-2011 school year were required to enroll in one or more developmental education courses. Based upon the study results, policy makers, administrators, faculty, and other school official, should begin to make sure they have a good developmental education department. Those who work with developmental education have indicated some useful ways to enhance a developmental education department. A new step for colleges could be to create a way to recognize their developmental education students, especially those who are excelling. Additionally, governmental officials and legislators will need to be involved in the process of enhancing



developmental education departments, especially with additional funding.

Acknowledging that increased funding does not always repair a failing system, the researcher also suggest that colleges could find inventive ways to do more with the governmental funds the colleges receive. An example of this could be to give a faculty a non-monetary incentive to sponsor a developmental education student organization. This could be as simple as additional days off work, or reduced teaching responsibilities.

The Mississippi Community College System, as a result of pressure from governmental officials and legislators, has been proactive in making changes within the developmental education system. Dr. Martha L. Smith (personal communication, August 2, 2014) stated that a developmental education taskforce was created by the community colleges in Mississippi to take a close look at the system's developmental education process and policies, and attempt to streamline the process by create a common system across the state. The taskforce wanted to be proactive instead of reactive to the Mississippi legislative body's desire to increase the number of students completing college. All community colleges had the opportunity to be a part of the taskforce, but only five took advantage of the opportunity (M. Smith, personal communication, August 27, 2014).

Dr. Jane Hulon, (personal communication, July 12, 2014), indicated that the following changes were recommended and adopted by the committee established to streamline developmental education in Mississippi. The first change was that six courses (COM 0113; HPR 0113; MAT 0113; MAT 1213;

MAT 1223 and SPT 0113) were removed from the uniformed course numbering system used by all the community colleges in Mississippi. The uniform course numbering systems was created to make sure all the colleges will be teaching similar course material and to ensure curriculum alignment across the community colleges in Mississippi (M. Smith, personal communication, August 27, 2014). Secondly, the following courses were added to the uniformed course numbering system; ENG 0114 Beginning English and Reading Combined; ENG 0124 Intermediate English and Reading Combined; ENG 0111, 0121, 0131 English and Reading Lab; and MAT 0111, 0121, 0131 Algebra Lab. There were five courses that remained the same. Third, the Taskforce recommended that the eligibility to teach developmental English at the community college change so that faculty members would a Master's degree in English. Beforehand, those faculty members only need a B.S. in English to be eligible to teach the courses. Finally, the committee established an ACT placement sub score for the community college system for gateway courses as a minimum ACT sub score of 17 for English Composition I and a minimum ACT sub score of 19 for College Algebra.

In addition to these changes, this research indicates that student integration and involvement policies need to be addressed. There are a few academic honor societies on community college campuses, but more need to be established. An example of the types of organizations that could be created is the "Achievement Club" created at a community college. This club is specifically an honor club for developmental education students in which students are required

to maintain good grades and exceptional leadership. The faculty advisor stated that the reactions of the students have been positive.

#### Limitations and Suggestions for Future Research

This study analyzed data from community colleges in Mississippi. The study was limited because faculty members from only 5 out of the 15 community colleges were interviewed and surveyed. As a result of the small sample size, any data entry mistakes, such as the student not answering the survey question correctly, could bias the final results of the reported data. It would have been helpful if all the community colleges in the state were surveyed.

An additional limitation was the inability to obtain the original information from the Mississippi Community College Board pertaining to the rates of completion of students separated by developmental education students and non-developmental students. Interestingly, the Board does not have this information and the information was not reported to the Board by the individual institutions. There is no evidence that this information is available at individual institutions. The importance of graduating developmental education students is apparent, as indicated by the school report cards each institution has to complete and place on their website for everyone to see. It would be helpful if the Board requested information that indicated the rates of graduation of developmental education students and the rates of graduation of non-developmental students, especially in consideration of the President's 2020 goal for college attainment.

*Further Research*

Educators and other supporters should “consider the study of remedial education a legitimate scholarly pursuit” (Handel & Williams, 2011, p. 32). Developmental education has become a very fluid system as the federal and state government, along with policy makers and fundraisers make college completion a priority (Parker, 2012). The community college system in Mississippi will continue to change and because of this change, there will be a continuing need for assessment to make sure they are successful. The new developmental education system must include items such as critical thinking, study skills, time management and goal setting as well as remediation aimed at supporting the successful completion of the gateway courses in English, Math and Reading (Daiek, Dixon & Talbert, 2012).

Research should be conducted to determine if there is a way to align the K-12 system with the college level skills expectations for student’s successful completion. The results of ignoring this misalignment between the secondary and post-secondary systems are too enormous to consider.

More research is needed to ascertain the actual completion rates of developmental students at the community college. Students come to the community college for a variety of reasons. Students, who are seeking a vocational degree or certificate, may only need one academic course to complete their certificate. Those students could possibly take a developmental course to satisfy that requirement. In that case, the student would be considered successfully remediated without completing the gateway course.

Finally, this study should be replicated using the entire community college system in Mississippi and surrounding states. Analyses of the results would allow researchers to compare these results to other demographic variables and potentially make generalizations about community colleges across the nation.

## APPENDIX A

## Interviewee Participant Letter

Dear Administrator or Faculty Member:


My name is Beverly Lewis. I am a doctoral student at The University of Southern Mississippi. I am currently working on my dissertation, which has two components. First, I will be attempting to identify those characteristics or best practices, related to the successful completion of developmental education courses, that faculty, administrators, and other educators feel are important. Secondly, this study will examine the link between academic integration, social integration and student involvement as they pertain to developmental education students and their successful completion of college.

To identify those characteristics or best practices, a set of interview questions have been developed to investigate commonality among those being interviewed. The interview questions will be submitted at least 10 days before the interview appointment and can be completed prior to the appointment. The interview appointment should take no longer than 45 minutes.

The questionnaire administered for this study will cover topics connected to student integration and student involvement as self-reported by the student. The questionnaire should be completed in no longer than 30 minutes.

All data collected will be confidential; participation is voluntary, and anonymous. Your participation in this research is strictly voluntary and you can withdraw your data at any time. This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow fellow regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6920. Thank you in advance, for your consideration and/or participation.

Respectfully yours,

  
Beverly Lewis  
Doctoral Candidate,  
Dept. of Ed. Studies & Research  
4 Evergreen Place  
Petal, MS 39465  
601.554.5502  
[bglewis962@gmail.com](mailto:bglewis962@gmail.com)

Dr. Kyna Shelley, Faculty Chair  
Dept. of Ed. Studies & Research  
The University of Southern Miss.  
118 College Drive #5093  
Hattiesburg, MS 39406  
601.266.4621  
[kyna.shelley@usm.edu](mailto:kyna.shelley@usm.edu)

## APPENDIX B

## INTERVIEW QUESTIONS

1. Name two of the most effective strategies you and/or your institution use to ensure successful completion of your developmental students.
2. How have you or your institution assessed the success of the strategies you listed in question 1.
3. In your opinion, who should be responsible for developmental education?
4. In what way do you feel that academic integration is helpful for the success of developmental education and/or retention.
5. In what ways do you feel that social integration is helpful for the success of developmental education and/or retention.
6. In what ways do you feel that student involvement helpful is for the success of developmental education and/or retention.
7. Should developmental courses be self-paced/open-ended or semester based?
8. How many times should a student be allowed to repeat or complete the course?
9. Do you believe that grouping developmental students by age will enhance their chances of successful completion of the course?
10. What are the positive aspects of developmental education?
11. What are the negative aspects of developmental education?
12. The developmental education process recently changed for the Mississippi Community College System. In what way do you think these

changes will effect developmental education.

13. Of the three, academic integration, social integration or student involvement, which do you feel is the best predictor of success and why?



## APPENDIX C

## Questionnaire Participant Letter

Dear Student:

If you agree to be a part of this study, "Developmental Education at the Community College: An Exploration of Instructional Best Practices and the Relationship between Integration, Student Involvement and Rates of Graduation", you will be asked to complete a questionnaire or answer some interview question. Students will be asked to complete the questionnaire, which should take no longer than 30 minutes to complete and faculty and administrators will be asked to answer the interview questions should take no longer than 45 minutes to complete. To continue, you are asked to mark "I agree to participate" at the bottom of this page.

- What are the risks? The risks associated with this study are minimal since participation in the survey in no way affects your grade or your job at the college.
- What are the benefits? The benefits which may reasonably be expected to result from this study are the opportunity to help evaluate and improve developmental education at the community colleges in Mississippi.
- How will my privacy be protected? The results of this study are confidential and only the investigator will have access to the information which will be kept in a locked filing cabinet. Your name or personal identifying information will not be used in any published reports of this research. All information gathered during this study will be destroyed one year after completion of the project. The final analysis will be shared with the University of Southern Mississippi and will be a part of a final dissertation available to the public.

I have read and understand the information in this form. By selecting "I agree to participate", I agree voluntarily to participate in this study. I know that I can withdraw from the study at any time.

Please select one of the options below.

☐ **I agree to participate**      ☐ **I do not agree to participate**

Note: If you have any questions about the study or your role in it, be sure to contact my Faculty Chair or myself with the information listed below.

Thank you!

  
 Beverly Lewis  
 Doctoral Candidate,  
 Dept. of Ed. Studies & Research  
 4 Evergreen Place  
 Petal, MS 39465  
 601.554.5502  
[bglewis962@gmail.com](mailto:bglewis962@gmail.com)

Dr. Kyna Shelley, Faculty Chair  
 Dept. of Ed. Studies & Research  
 The University of Southern Miss.  
 118 College Drive #5093  
 Hattiesburg, MS 39406  
 601.266.4621  
[kyna.shelley@usm.edu](mailto:kyna.shelley@usm.edu)

## APPENDIX D

## Modified Institutional Integration and Student Involvement Questionnaire

Please complete the following questions by **CHECKING** the appropriate response.

1. College classification:

\_\_\_\_\_ Freshman

\_\_\_\_\_ Sophomore

2. Gender:

\_\_\_\_\_ Male

\_\_\_\_\_ Female

3. Race/ethnicity (You can mark only one blank):

\_\_\_\_\_ Black

\_\_\_\_\_ White

\_\_\_\_\_ Asian/Pacific Islander

\_\_\_\_\_ Hispanic

\_\_\_\_\_ Native American

\_\_\_\_\_ Other

4. Cumulative GPA:

\_\_\_\_\_ A – 4.0

\_\_\_\_\_ B – 3.0 or above

\_\_\_\_\_ C – 2.0 or above

\_\_\_\_\_ D – 1.0 or above

\_\_\_\_\_ F – below 1.0

\_\_\_\_\_ Unknown or just started college

5. Number of Developmental Education Courses Taken:

\_\_\_\_\_ No Courses Taken

\_\_\_\_\_ 1 Course

\_\_\_\_\_ 2 Courses

\_\_\_\_\_ 3 Courses

\_\_\_\_\_ 4 Courses

\_\_\_\_\_ 5 or more Courses

6. Attendance (how many):

\_\_\_\_\_ One Semester

\_\_\_\_\_ Two Semesters

\_\_\_\_\_ Three Semesters

\_\_\_\_\_ Four Semesters

\_\_\_\_\_ Five or more Semesters

Please respond to each of the items below using the following scale:

1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree  
(Please circle your responses.)

	Since enrolling at this community college, I	SD	D	N	A	SA
7	Many faculty members I have had contact with are willing to spend time outside of class to discuss issues of interest and importance to students.	1	2	3	4	5
8	I have developed a relationship with at least one faculty member.	1	2	3	4	5
9	My non-classroom interactions with faculty members have positively influenced my intellectual growth and interest in ideas.	1	2	3	4	5
10	My non-classroom interactions with faculty members have positively influenced my career goals and aspirations.	1	2	3	4	5
11	Many faculty members I have had contact with are genuinely outstanding or superior teachers.	1	2	3	4	5
12	Most faculty members I have had contact with are genuinely interested in students.	1	2	3	4	5
13	Many faculty members I have had contact with are interested in helping students grow in more than just academic areas.	1	2	3	4	5
14	Most faculty members I have had contact with are genuinely interested in teaching.	1	2	3	4	5
15	I have developed a relationship with other students.	1	2	3	4	5
16	The student friendships I have developed have been personally satisfying.	1	2	3	4	5
17	My personal relationships with other students have positively influenced my personal growth, values, and attitudes.	1	2	3	4	5
18	It has been easy for me to meet and make friends with students.	1	2	3	4	5
19	Many students I know would be willing to listen and help me if I had a personal problem.	1	2	3	4	5
20	Most students at this college have values and attitudes similar to mine.	1	2	3	4	5
21	I am satisfied with the opportunities to participate in organized extra-curricular activities at this college.	1	2	3	4	5
22	Most of my courses have been intellectually stimulating.	1	2	3	4	5
23	I am satisfied with my academic experience at this college.	1	2	3	4	5
24	I have performed academically as well as I anticipated.	1	2	3	4	5
25	I am satisfied with the extent of my intellectual development.	1	2	3	4	5
26	My interest in ideas and intellectual matters has increased since starting classes.	1	2	3	4	5
27	It is important to me to graduate from this college.	1	2	3	4	5
28	I am confident that I made the right decision in choosing to attend this college	1	2	3	4	5
29	I will most likely register at this college next fall.	1	2	3	4	5
30	It is important to me to complete my college degree.	1	2	3	4	5

	<b>Since enrolling at this community college, I</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>
31	I am actively involved with various school sponsored activities (example: cultural events).	1	2	3	4	5
32	I have met with my instructor/professor outside of the classroom or after class have been dismissed.	1	2	3	4	5
33	The faculty, staff and administration at this institution have the skills necessary to help me be successful.	1	2	3	4	5
34	I have attended an educational activity outside of class (i.e. faculty lecture or concert).	1	2	3	4	5
35	I often attend study groups outside the classroom.	1	2	3	4	5
36	I have attended sporting events (i.e. football, basketball, baseball, soccer or track events).	1	2	3	4	5
37	I have or have had in the past, an on campus job (i.e. work-study or lab assistant).	1	2	3	4	5
38	I have participated in a group activity for a class project within the classroom.	1	2	3	4	5

Thank you for completing this questionnaire. Please return it to the researcher(s).

## APPENDIX E

### USM IRB APPROVAL



#### INSTITUTIONAL REVIEW BOARD

118 College Drive #5147 | Hattiesburg, MS 39406-0001

Phone: 601.266.5997 | Fax: 601.266.4377 | [www.usm.edu/research/institutional-review-board](http://www.usm.edu/research/institutional-review-board)

#### NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.  
Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: **14042501**

PROJECT TITLE: **Developmental Education at the Community College: An Exploration of Instructional Best Practices and the Relationship between Intergration, Student Involvement and Rates of Graduation**

PROJECT TYPE: **New Project**

RESEARCHER(S): **Beverly Lewis**

COLLEGE/DIVISION: **College of Education and Psychology**

DEPARTMENT: **Educational Studies and Research**

FUNDING AGENCY/SPONSOR: **N/A**

IRB COMMITTEE ACTION: **Expedited Review Approval**

PERIOD OF APPROVAL: **04/25/2014 to 04/24/2015**

**Lawrence A. Hosman, Ph.D.**  
**Institutional Review Board**

## APPENDIX F

## Usage Agreement Institutional Integration Scale and Original Scale

**Beverly Lewis**

---

**From:** French, Brian F <frenchb@wsu.edu>  
**Sent:** Monday, July 22, 2013 8:32 AM  
**To:** Beverly Lewis  
**Subject:** RE: Institutional Integration Scale  
**Attachments:** ISS\_revised.pdf; french\_oakes\_2004\_iss\_EPM.pdf; Breidenbach\_French\_2011\_JCSR.pdf

Dear Beverly,

Thank you for your interest in my work. I have attached a version of the scale I used at Purdue. The changes to make it general will be obvious.

The other two papers talk about the scale itself in terms of reliability and validity evidence. I wish you success in your research.

Take good care,  
 Brian French

---

Brian F. French  
 Professor  
 Director-LPRC  
 Washington State University  
 509-335-8584

---

**From:** Beverly Lewis [<mailto:blewis@prcc.edu>]  
**Sent:** Monday, July 22, 2013 5:46 AM  
**To:** French, Brian F  
**Subject:** Institutional Integration Scale

Dr. French,

My name is Beverly Lewis and I am a graduate student at the University of Southern Mississippi in Hattiesburg, MS. I am working on my dissertation and need a survey instrument that looks at academic integration, social integration and student involvement. During my research I came across your Institutional Integration Scale and would like to have more information about it. Can you give me validity and reliability information and would you be willing to allow me to use the survey in my research project. The survey would be given to community college students here in Mississippi. I would also need a complete copy of the scale.

Looking forward to hearing from you.

-----

***Beverly G. Lewis, Ed.S.***

Director of Business and Student Services  
 Pearl River Community College, Forrest County Center  
 5448 US Highway 49 South: Hattiesburg, MS 39401  
 601.554.5502 ~ Office : 601.554.5516 ~ Fax

“The *will of God will* never take you where the *Grace of God will not* protect you.”





### MARKING INSTRUCTIONS

- Use number 2 pencil only.
- Make dark marks that fill the oval completely.
- Erase cleanly any mark you wish to change.
- Make no stray marks.

Correct Mark 

Incorrect Marks    

Last Name	First Name	Middle Initial
A	A	A
B	B	B
C	C	C
D	D	D
E	E	E
F	F	F
G	G	G
H	H	H
I	I	I
J	J	J
K	K	K
L	L	L
M	M	M
N	N	N
O	O	O
P	P	P
Q	Q	Q
R	R	R
S	S	S
T	T	T
U	U	U
V	V	V
W	W	W
X	X	X
Y	Y	Y
Z	Z	Z

[illegible]

Course/Section #						
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

Following is a list of statements characterizing various aspects of academic and social life at Purdue University. Using the scale to the right of the statements, please indicate the extent of your agreement or disagreement with each statement, as it applies to your Purdue experience during the past few months by marking the appropriate number. Please mark **ONLY ONE** number for each statement.

**So far at Purdue University:**

Most of my courses have been intellectually stimulating.	1	2	3	4	5
I am satisfied with my academic experience at Purdue.	1	2	3	4	5
I am more likely to attend a cultural event (e.g., a concert, lecture, or art show) now compared to few months ago.	1	2	3	4	5
I am satisfied with the extent of my intellectual development.	1	2	3	4	5
In addition to required reading assignments, I read many of the recommended books in my courses.	1	2	3	4	5
My interest in ideas and intellectual matters has increased since starting classes.	1	2	3	4	5
I have an idea about what I want to major in.	1	2	3	4	5
This year my academic experience has positively influenced my <u>intellectual growth and interest in ideas</u> .	1	2	3	4	5
Getting good grades is important to me.	1	2	3	4	5
I have performed academically as well as I anticipated.	1	2	3	4	5
My interpersonal relationships with students have positively influenced my <u>intellectual growth and interest in ideas</u> .	1	2	3	4	5

	Strongly Disagree	Somewhat Disagree	Not Sure	Somewhat Agree	Strongly Agree
I have developed close personal relationships with other students.	1	2	3	4	5
The student friendships I have developed have been personally satisfying.	1	2	3	4	5
My personal relationships with other students have positively influenced my <u>personal growth, values, and attitudes</u> .	1	2	3	4	5
It has been easy for me to meet and make friends with students.	1	2	3	4	5
I am satisfied with my dating relationships.	1	2	3	4	5
Many students I know would be willing to listen and help me if I had a personal problem	1	2	3	4	5
Most students at Purdue have values and attitudes similar to mine.	1	2	3	4	5
I am satisfied with the opportunities to participate in organized extra-curricular activities at Purdue.	1	2	3	4	5
I am happy with my living /residence arrangement.	1	2	3	4	5
I am satisfied with my opportunities to meet and interact informally with faculty members	1	2	3	4	5
Many faculty members I have had contact with are willing to spend time outside of class to discuss issues of interest and importance to students.	1	2	3	4	5
I have developed a close, personal relationship with at least one faculty member.	1	2	3	4	5
My non-classroom interactions with faculty members have positively influenced my <u>intellectual growth and interest in ideas</u> .	1	2	3	4	5
My non-classroom interactions with faculty members have positively influenced my <u>personal growth, values, and attitudes</u> .	1	2	3	4	5
My non-classroom interactions with faculty members have positively influenced my <u>career goals and aspirations</u> .	1	2	3	4	5
Many faculty members I have had contact with are genuinely outstanding or superior teachers.	1	2	3	4	5
Many faculty members I have had contact with are genuinely interested in <u>students</u> .	1	2	3	4	5
Many faculty members I have had contact with are genuinely interested in <u>teaching</u> .	1	2	3	4	5
Many faculty members I have had contact with are interested in helping students grow in more than just academic areas.	1	2	3	4	5
It is important to me to graduate from college.	1	2	3	4	5
It is important to me to graduate from Purdue.	1	2	3	4	5
I am confident that I made the right decision in choosing to attend Purdue.	1	2	3	4	5
I will most likely register at Purdue next fall.	1	2	3	4	5

Comments



## APPENDIX G

# MISSISSIPPI COMMUNITY COLLEGE BOARD APPROVAL TO CONDUCT STUDY

<p><b>Mississippi Association of Community and Junior Colleges (MACJC) - Presidents' Association</b></p> <p><b>Application to Conduct Statewide Research on MACJC Institutions</b></p>	<p><u>LEAVE BLANK – FOR MACJC USE ONLY.</u></p> <p>PROJECT NUMBER: _____ DATE RECEIVED: _____</p> <p>MCCB Recommendation (Check One):  <input type="checkbox"/> Approve <input type="checkbox"/> Not Approve  <input type="checkbox"/> Approve with Stipulations  <input type="checkbox"/> Table for Further Review – Review Date: _____  Comments: _____</p>
<p><b>DIRECTIONS:</b> Individuals conducting statewide research on Mississippi's community and junior colleges must complete this application and email to <a href="mailto:dwest@mccb.edu">dwest@mccb.edu</a>. Individuals should also review the checklist following this application for more details.</p>	
<p><u>Purpose</u> - Individuals conducting statewide research on Mississippi's community and junior colleges must complete this application and obtain approval from the MACJC Presidents' Association prior to conducting any research. This Application serves the following purposes:</p> <p>(1) requires the researcher to summarize the proposed research and provide supporting documentation ensuring that research is performed in compliance with all applicable laws, regulations, and institutional and federal policies regarding human subjects research, (2) ensures the proposed research has institutional support through IRB approval and the endorsement of a qualified research advisor (i.e. faculty member) who assumes responsibility for the project, (3) provides the applicant with appropriate documentation that the MACJC Presidents' Association has reviewed the proposed study. <u>This documentation may be required in lieu of OR in addition to local college approval to conduct the stated research.</u></p>	
<p><b>Principal Investigator (PI) Contact Information</b> – The PI for the purposes of this application is the individual who will personally conduct this research study. Under most circumstances, the PI will be the student researcher.</p>	
Name:	Beverly G. Lewis
Email:	bglewis962@gmail.com
Address:	4 Evergreen Place
Phone:	601.466.6360
Fax:	601.554.5516
City:	Petal
State:	MS
Zip:	39465
<p><b>Research Advisor (RA) Contact Information</b> – The RA for the purposes of this application is the individual who will personally supervise and oversee this research study. Under most circumstances, the RA will be the faculty member working with the student researcher.</p>	
Name:	Dr. Kyna Shelley
Email:	kyna.shelley@usm.edu
Address:	118 College Drive #5093
Phone:	601.266.4621
Fax:	601.266.4233
City:	Hattiesburg
State:	Mississippi
Zip:	39406
<p><b>Sponsoring Institution or Agency:</b> The University of Southern Mississippi</p>	

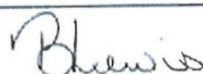
### Steps for Research Proposal Approval

- (1) **COMPLETE APPLICATION** – Principal Investigator shall complete this application and submit it and all supporting documentation (surveys, file layouts, interview questions, etc.) electronically to [dwest@mccb.edu](mailto:dwest@mccb.edu) at least three weeks prior to the desired date of approval.
- (2) **VERIFICATION OF APPLICATION** - Once application is received and reviewed for completeness, the SBCJC staff will forward all application materials electronically to the Chair of the MACJC for appropriate MACJC action.
- (3) **MACJC ACTION** – The Chair of the MACJC will forward all application materials electronically to the other fourteen members of the Association for approval and/or recommendation. The Chair will then notify the SBCJC staff within 10 working days as to the disposition of the application.
- (4) **NOTIFICATION OF PRINCIPAL INVESTIGATOR**– SBCJC staff will notify the principal investigator and provide signed documentation of the MACJC's action.

### Signatures

**Principal Investigator** - I certify that the information in this application is complete and correct. As Principal Investigator, I have the ultimate responsibility for protecting the rights and welfare of human participants, secure conduct of the research, and the ethical performance of the project. I will comply with all applicable federal, state, and local laws regarding the protection of participants in human research. To contribute to the body of knowledge on Mississippi's Community Colleges, I agree to provide the MACJC with an electronic copy of my research upon its completion.

Signature of Principal Investigator

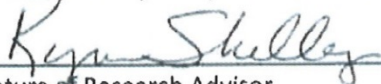


Date: 27 Feb 2014

**Research Advisor** - I certify that the information in this application is complete and correct, and that this proposed research has been approved by the IRB of the sponsoring institution. As Research Advisor, I confirm that the student researcher under my guidance is knowledgeable about the regulations and policies governing research with human subjects, and has sufficient training and experience to conduct the research outlined in this application.

I further agree to regularly meet with the student researcher to monitor his or her progress; and if problems arise, I will become personally available to help the student researcher resolve those problems. As an advisor on this project, I will assure the protection of the rights and welfare of human participants, secure conduct of the research, and the ethical performance of the project. I will comply with all applicable federal, state, and local laws regarding the protection of participants in human research.

Signature of Research Advisor



3/1/2014

Date

Beverly Lewis

<b>Department Chair</b> - I acknowledge that this research is in keeping with the standards set by our department and our Institutional IRB or its equivalent. I also certify that the Principal Investigator has met all the departmental and institutional requirements for approval of this research.	
_____ Signature of Department Chair	_____ Date
<b>MACJC Chair</b> - I acknowledge on behalf of the MACJC Presidents' Association that this research has been reviewed and has subsequently received the following recommendation by consensus of the Association membership:	
<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Tabled for Further Review <input type="checkbox"/> Not Approved <input type="checkbox"/>	
Approved with Stipulations:	
_____ Signature of MACJC Chair	_____ Date



## APPENDIX H

## PEARL RIVER COMMUNITY COLLEGE APPROVAL TO CONDUCT STUDY

**Pearl River Community College  
Institutional Review Board Decision Letter**

The Institutional Review Board (IRB) has completed its review of the following project:

Principal Investigator: Beverly Lewis

Project Title: Developmental Education at the Community College: An Exploration of Instructional Best Practices and the Relationship between Integration, Student Involvement, and Rates of Graduation

Funding Agency: N/A

Proposal Number (if applicable): N/A

The determination of the board is that:

✓ This project **complies** with the institution's policy and procedures regarding use of human subjects in a grant-funded research project (Common Rule Section 101, subsection b). The project may be conducted as planned subject to continuing review as outlined in the Board's procedures.

You are authorized to implement this study as of the date of the final approval. This approval is valid for one year. If the project continues beyond this time frame, the IRB will request continuing review and update of the project. After receiving initial approval of your project, any proposed changes that may affect the format, implementation, or exempt status of your project and/or any unanticipated or serious adverse events involving risk to the participants requires that notification must be received, and approval must be granted, by the PRCC IRB before the implementation of the project.

As stated and agreed upon in your petition to the Pearl River Community College Institutional Review Board, **study findings must be shared with the PRCC IRB.** Copies of the report may be shared with both internal and external personnel associated with the College who have an interest in the topic and results. In addition, **permission of the PRCC IRB is required prior to publication of your study.** Approval is at the sole discretion of the Board.

       This project **does not comply** with the institution's policy and procedures regarding use of human subjects in a grant-funded research project. Concerns of the Institutional Review Board are outlined in an attached document. The Principal Investigator has the right to modify and re-submit the proposal for another review.

Bucky Aikew  
Chair, Institutional Review Board

5-1-14  
Date

## APPENDIX I

## HINDS COMMUNITY COLLEGE APPROVAL TO CONDUCT STUDY

**Beverly Lewis**

---

**From:** Dear, Carley P. <Carley.Dear@hindsc.edu>  
**Sent:** Thursday, June 12, 2014 8:37 AM  
**To:** Beverly Lewis  
**Subject:** RE: Conducting Research at Hinds

Thank you for submitting your research proposal to Hinds CC. We would like to participate in your research project.

How are you planning on conducting the student survey? Online/pen and paper?

Who would you like to interview for the faculty/administrator questionnaire?

*Carley Dear*

Director of Institutional Research and Effectiveness

Adam Jenkins, Jr. Hall 112 (Admin Building)

601-857-3357



APPENDIX J

MISSISSIPPI GULF COAST COMMUNITY COLLEGE APPROVAL TO  
CONDUCT STUDY

**Beverly Lewis**

---

**From:** Bryan, Angela <angela.bryan@mgccc.edu>  
**Sent:** Wednesday, June 04, 2014 2:41 PM  
**To:** Beverly Lewis  
**Cc:** Beebe, Melissa  
**Subject:** RE: Conducting Research at MGCCC

Hi Beverly,

You need no further approval, but if you want my office to send your survey, please let me know the survey parameters (who and when to survey), and the survey link or survey questions.

If you have any other questions, let me know.

Angela Bryan

---

APPENDIX K

NORTHEAST MISSISSIPPI COMMUNITY COLLEGE APPROVAL TO  
CONDUCT STUDY

**Beverly Lewis**

---

**From:** Craig-Ellis Sasser <cesasser@nemcc.edu>  
**Sent:** Thursday, June 05, 2014 1:22 PM  
**To:** Beverly Lewis  
**Subject:** RE: Conducting Research at NEMCC

Beverly,

We are good to move forward. Please let me know what information you need.

Craig-Ellis Sasser

---

## APPENDIX L

COPIAH-LINCOLN COMMUNITY COLLEGE APPROVAL TO CONDUCT  
STUDY**Beverly Lewis**

---

**From:** Posey, Jeff <Jeff.Posey@colin.edu>  
**Sent:** Friday, May 02, 2014 3:24 PM  
**To:** Beverly Lewis; Howell, Amye; Furr, Cliff  
**Cc:** Hulon, Jane; Logan, Jill; Nettles, Ronnie  
**Subject:** FW: Conducting Research at Co-Lin  
**Attachments:** Co-Lin Request to Conduct Research.pdf; USM IRB Approval Letter.pdf; MCCB Approval Document.pdf; Interviewee Participant Letter & Questionnaire.pdf; Student Questionnaire & Participant Letter.pdf

Beverly,

*I have reviewed your request for research which was approved by the Mississippi Community College President's Association. Based on the information that you have presented, the risk of harm to participants is very minimal and the research methodology seems sound. With that in mind, we are approving your research request and wish you the best as you pursue your doctorate degree.*

*I need for you to communicate with Mrs. Amye Howell (amyehowell@colin.edu and Mr. Cliff Furr (cliff.furr@colin.edu).*

*Mrs. Howell will be teaching the Intermediate English/Reading Combination class on the Wesson Campus during June from 10:45 a.m.-1:15 p.m. M-Th in Dow/Young Building, Room 125. Please note that we no longer have a standalone developmental English course anymore. The course is a combination reading/English course.*

*Mr. Cliff Furr will be teaching English Composition I during June from 8:00-10:30 a.m. M-Th in Smith Hall, Room 211.*

*These instructors can give you the particulars of a good time to come do the surveys with their students and for interviewing any faculty, etc.*

*Best wishes in your endeavors and feel free to contact me if I can be of further assistance.*

*Sincerely,*

*Jeff*



## REFERENCES

- Adams, C. (2011). Colleges try to unlock secrets to student retention. *Education Digest*, 77(4), 19-23. Retrieved on March 30, 2010 from <http://lynx.lib.usm.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=f5h&AN=67664249&site=ehost-live>.
- Alkandari, N. (2008). Factors affecting students' retention at Kuwait University. *College Student Journal*, 42(2), 483-492. Retrieved on December 20, 2010 from <http://lynx.lib.usm.edu:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=32544883&site=ehost-live>.
- Allen, J. M., & Smith, C. L. (2008). Importance of, responsibility for, and satisfaction with academic advising: A faculty perspective. *Journal of College Student Development*, 49(5), 397-411. Retrieved on October 10, 2012 from [http://muse.jhu.edu/lynx.lib.usm.edu/journals/journal\\_of\\_college\\_student\\_development/v049/49.5.allen.html](http://muse.jhu.edu/lynx.lib.usm.edu/journals/journal_of_college_student_development/v049/49.5.allen.html).  
doi:10.1353/csd.0.0033.
- Alexander, F.K. (1998). *The president's commission higher education for democracy, 1947*. Retrieved from <http://www.ed.uiuc.edu/courses/eo1474/sp98/truman.html>.
- American Association of Community College (AACC). (2012). *History: Past and present*. Retrieved on April 30, 2012 from <http://www.aacc.nche.edu>.
- Arkansas State Dept. of Education, Little Rock. (2006). Arkansas Department of Education College Professor Study on Preparedness of High School

- Seniors for College. *Arkansas Department of Education*. Retrieved from <http://www.eric.ed.gov/PDFS/ED497753.pdf>.
- Astin, A. W. (1975). *Preventing students from dropping out*. San Francisco, CA: Jossey-Bass Publishers.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25, 297-308.
- Astin, A. W. (1991). *Assessment for excellence*. New York: Macmillan.
- Astin, A. W. (1993). *What matters in college: Four critical years revisited*. San Francisco, CA: Jossey-Bass Publishers.
- Astin, A. W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 40(5), 518-529.  
Retrieved on May 15, 2012 from <https://www.middlesex.mass.edu/ace/downloads/astininv.pdf>.
- Astin, A. W. (2004). To use graduation rates to measure excellence, you have to do your homework. *The Chronicle of Higher Education*, 51(9), B20.  
Retrieved from <http://p2048-lynx.lib.usm.edu.logon.lynx.lib.usm.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=14905367&site=ehost-live>.
- Astin, A. W., California Univ., L., & American Council on Education, W. C.(1984). *The American Freshman: National Norms for Fall 1984*. Retrieved from <http://www.eric.ed.gov/PDFS/ED255106.pdf>.
- Astin, A. W., & Oseguera, L. (2005). *Degree attainment rates at American*

*colleges and universities*. Revised Edition. Los Angeles: Higher Education Research Institute, UCLA.

- Bahr, P. (2008). Does mathematics remediation work?: A comparative analysis of academic attainment among community college students. *Research in Higher Education* 49(5), 420-450. Retrieved on January 15, 2012 from <http://lynx.lib.usm.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=32484684&site=ehost-live>. doi: 10.1007/s11162-008-9089-4.
- Bahr, P. (2010). Revisiting the efficacy of postsecondary remediation: The moderating effects of depth/breadth of deficiency. *Review of Higher Education*, 33(2), 177- 205. Retrieved on January 15, 2012 from [http://muse.jhu.edu.lynx.lib.usm.edu/journals/review\\_of\\_higher\\_education/v033/33.2.bahr.html](http://muse.jhu.edu.lynx.lib.usm.edu/journals/review_of_higher_education/v033/33.2.bahr.html). doi: 10.1353/rhe.0.0128.
- Bailey, T. (2009). Challenge and opportunity: Rethinking the role and function of developmental education in community college. *New Directions for Community College*, (145), 11-30. Retrieved on February 10, 2010 from <http://eric.ed.gov/?id=ED504242>. doi:10.1002/cc.352.
- Bailey, T., & Cho, S. (2010). *Issue Brief: Developmental education in community college*. The White House Summit on Community College. Community College Research Center. Retrieved on February 10, 2010 from <http://eric.ed.gov/?id=ED512399>.
- Bailey, T., Jenkins, D., & Leinbach, T. (2006). *Is student success labeled*

*institutional failure? Student goals and graduation rates in the accountability debate at community college* (CCRC Working Paper No. 1). New York: Columbia University, Teacher College, Community College Research Center. Retrieved from <http://www.eric.ed.gov/PDFS/ED489101.pdf>.

Baker, B. A., Caison, A. L., & Meade, A. W. (2007). Assessing gender-related differential item functioning and predictive validity with the institutional integration scale. *Educational & Psychological Measurement*, 67(3), 545-559. Retrieved on February 10, 2012 from <http://epm.sagepub.com.lynx.lib.usm.edu/content/67/3/545.full.pdf+html>.

Barbatis, P. (2010). Underprepared, ethnically diverse community college student: Factors contributing to persistence. *Journal of Developmental Education*, 33(3), 14-24. Retrieved on February 15, 2011 from <http://epm.sagepub.com.lynx.lib.usm.edu/content/67/3/545.full.pdf+html>.

Barnes, D. (2013). Mississippi community colleges reach tipping point. *Clarion Ledger*. Jackson, MS. Retrieved on May 15, 2014 from <http://www.clarionledger.com/apps/pbcs.dll/article?AID=/201310270100/NEWS01/310270027>.

Barr, J., & Schuetz, P. (2008). *Are community colleges underprepared for underprepared students?* New Directions for Community Colleges, No. 44. San Francisco, CA: Jossey-Bass Publishers.

Bean, J., & Metzner, B.S. (1985). A conceptual model of nontraditional

undergraduate student attrition. *Review of Educational Research*, 55, 485-540. Retrieved on June 25, 2011 from <http://www.jstor.org.lynx.lib.usm.edu/stable/pdf/1170245.pdf?acceptTC=true>.

Beaver, W. (2010). Do we need more college graduates? *Society*, 47, 308-311. Retrieved on July 15, 2011 from <http://lynx.lib.usm.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=s3h&AN=51652737&site=ehost-live>.

Boroch, D., Hope, L., Smith, B., Gabriner, R., Mery, P., Johnstone, R., & Asera, R. (2010). *Student success in community colleges: A practical guide to developmental education*. San Francisco, CA: Jossey-Bass Publishers.

Boswell, K. (2004). Keeping america's promise: A report on the future of the community college. *Education Commission of the States*. Retrieved on July 15, 2011 from <http://eric.ed.gov/?id=ED485663>.

Boyd, M. D. (2014). *Three proposals to simplify the federal student aid system: A critical reply from financial aid administrators at historically black colleges and universities*. The George Washington University, ProQuest, UMI Dissertations Publishing, 2014.

Boylan, H. (2008). Relentless leader's focus on developmental education: An interview with Byron McClenney. *Journal of Developmental Education*, 31(3), 16-18. Retrieved on June 25, 2011 from <http://eric.ed.gov/?id=EJ832678>.

Boylan, H., & Bonham, B. (2007). 30 Years of developmental education: A

retrospective. *Journal of Developmental Education*, 30(3), 2-4. Retrieved on October 26, 2010 from [http://web.ebscohost.com/login.lynx.lib.usm.edu/ehost/pdfviewer/pdfviewer?sid=44be3ed4-3baa-44aa-90a9868df369b0bc%40sessionmgr4 &vid=55&hid=10](http://web.ebscohost.com/login.lynx.lib.usm.edu/ehost/pdfviewer/pdfviewer?sid=44be3ed4-3baa-44aa-90a9868df369b0bc%40sessionmgr4&vid=55&hid=10).

Braxton, J. M., Hirschy, A.S., & McClendon, S.A. (2004). *Understanding and reducing college student departure*. ASHE-ERIC Higher Education Report, Volume 30, Issue 3. San Francisco, CA: Jossey-Bass Publishers.

Breidenbach, D. H., & French, B. F. (2011). Ordinal logistic regression to detect differential item functioning for gender in the institutional integration scale. *Journal of College Student Retention: Research, Theory & Practice*, 12(3), 339-352.

Busseri, M. A., & Rose-Krasnor, L. (2008). Subjective experiences in activity involvement and perceptions of growth in a sample of first-year female university students. *Journal of College Student Development*, 49(5), 425-442. Retrieved on August 15, 2012 from [http://muse.jhu.edu/login.lynx.lib.usm.edu/journals/journal\\_of\\_college\\_student\\_development/v049/49.5.busseri.html](http://muse.jhu.edu/login.lynx.lib.usm.edu/journals/journal_of_college_student_development/v049/49.5.busseri.html).

Byrd, K. L., & MacDonald, G. (2005). Defining college readiness from the inside out: First-generation college student perspectives. *Community College Review*, 33(1), 22-37. Retrieved on October 26, 2009 from <http://web.ebscohost.com/login.lynx.lib.usm.edu/ehost/pdfviewer/pdfviewer?vid=58&hid=10&sid=44be3ed4-3baa-44aa-90a9868df369b0bc%40sessionmgr4>.

Chaves, C. (2006). Involvement, development, and retention: Theoretical

foundations and potential extensions for adult community college students. *Community College Review*, 34(2), 139-152. Retrieved on September 20, 2012 from <http://web.a.ebscohost.com.lynx.lib.usm.edu/ehost/pdfviewer/pdfviewer?vid=11&sid=6efad753-f511-4fae-a5dd-bf3633f5e07a%40sessionmgr4001&hid=4209>. doi:10.1177/0091552106293414.

Chen, S., & Cheng, D. (1999). *Remedial education and grading: A case study approach to two critical issues in American higher education*. The Research Foundation of the City 5. University of New York. Retrieved on March 15, 2010 from <http://www.eric.ed.gov/PDFS/ED442433.pdf>.

Cohen, A. M., & Brawer, F.B. (2003). *The American Community College*, 4<sup>th</sup> Edition. San Francisco, CA: Jossey-Bass Publishers.

Coll, K. M., & Stewart, R. A. (2008). College student retention: Instrument validation and value for partnering between academic and counseling services. *College Student Journal*, 42(1), 41-56. Retrieved on November 13, 2011 from <http://lynx.lib.usm.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=s3h&AN=31824779&site=ehost-live>.

Collins, M. L. (2010). Bridging the evidence gap in developmental education. *Journal of Developmental Education*, 34(1), 2-4. Retrieved on August 11, 2011 from <http://eric.ed.gov/?id=EJ942875>.

Corbyn, Z. (2011). They've started, but will they finish?. *Times Higher Education*, (Issue 1988), 38-41.

Couturier, L. K. (2010). *The rallying call: Bringing game changing results to*

*developmental education. The colloquium on state policy support for developmental education innovation.* Jobs for the Future. Retrieved March 31, 2012 from <http://www.eric.ed.gov/PDFS/ED520108.pdf>.

Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating qualitative research.* Upper Saddle River, NJ: Merrill Prentice Hall Pearson Education.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative and mixed methods approaches.* Los Angeles, CA: SAGE Publications, Inc.

Crisp, G. (2010). The impact of mentoring on the success of community college students. *Review of Higher Education*, 34(1), 39-60. Retrieved on February 15, 2011 from [http://muse.jhu.edu/lynx.lib.usm.edu/journals/review\\_of\\_higher\\_education/v034/34.1.crisp.pdf](http://muse.jhu.edu/lynx.lib.usm.edu/journals/review_of_higher_education/v034/34.1.crisp.pdf).

DaDeppo, L. W. (2009). Integration factors related to the academic success and intent to persist of college students with learning disabilities. *Learning Disabilities Research & Practice*, 24(3), 122-131. Retrieved on December 20, 2010 from <http://web.a.ebscohost.com/lynx.lib.usm.edu/ehost/pdfviewer/pdfviewer?vid=12&sid=8fb3ef9f-9724-4793-96dbf7c634b8b029%40sessionmgr4005&hid=4209>.

Daiek, D., Dixon, S., & Talbert, L. (2012). At issue: Developmental education and the success of our community college students. *Community College Enterprise* [serial online]. Spring 2012; 18(1), 37-40. Retrieved on July 20,



2014. <http://web.a.ebscohost.com.lynx.lib.usm.edu/ehost/pdfviewer/pdfviewer?vid=15&sid=8fb3ef9f-9724-4793-96db-f7c634b8b029%40sessionmgr4005&hid=4209>.

Davidson, W. B., Beck, H. P., & Milligan, M. (2009). The college persistence questionnaire: Development and validation of an instrument that predicts student attrition. *Journal of College Student Development*, 50(4), 373-390. Retrieved on December 20, 2010 from [http://muse.jhu.edu.lynx.lib.usm.edu/journals/journal\\_of\\_college\\_student\\_development/v050/50.4.davidson.html](http://muse.jhu.edu.lynx.lib.usm.edu/journals/journal_of_college_student_development/v050/50.4.davidson.html).

Day J. C., & Newburger, E. C. (2002). *The big payoff: Educational attainment and synthetic estimates of work-life earnings*. U.S. Department of Commerce: U.S. Census Bureau. Retrieved April 19, 2012 from <http://www.census.gov/prod/2002pubs/p23-210.pdf>.

Deil-Amen, R. (2011). Socio-academic integrative moments: Rethinking academic and social integration among two-year college students in career-related programs. *Journal of Higher Education*, 82(1), 54-91. Retrieved on February 15, 2012 from <http://web.a.ebscohost.com.lynx.lib.usm.edu/ehost/pdfviewer/pdfviewer?vid=19&sid=8fb3ef9f-9724-4793-96db-f7c634b8b029%40sessionmgr4005&hid=4209>.

Derby, D., & Smith, T. (2004). An orientation course and community college retention. *Community College Journal of Research & Practice*, 28(9), 763-773. Retrieved on March 21, 2011 from <http://www.tandfonline.com.lynx.lib.usm.edu/doi/pdf/10.1080/10668920390254771>.

DeWitz, S. J., Woolsey, M. L., & Walsh, W. B. (2009). College student retention:

An exploration of the relationship between self-efficacy beliefs and purpose in life among college students. *Journal of College Student Development*, 50(1), 19-34. Retrieved on July 20, 2010 from

<http://muse.jhu.edu.lynx.lib.usm.edu/journals/>

[journal\\_of\\_college\\_student\\_development/v050/50.1.dewitz.html](http://muse.jhu.edu.lynx.lib.usm.edu/journals/journal_of_college_student_development/v050/50.1.dewitz.html). dio:

10.1353/csd.0.0049.

Dixon, P. (2013). Mississippi gulf coast community college releases institutional

reports cards. Retrieved May 20, 2014 from <http://www.mgccc.edu/>

[mississippi-gulf-coast-community-college-releases-institutional-reports-cards/](http://www.mgccc.edu/mississippi-gulf-coast-community-college-releases-institutional-reports-cards/).

Edgecombe, N. (2011). Accelerating the academic achievement of students

referred to developmental education. CCRC Brief. Number 55. *Community*

*College Research Center, Columbia University*, Retrieved from

<http://www.eric.ed.gov/PDFS/ED519845.pdf>.

Ethington, C. A., & Horn, R. A. (2007). An examination of pace's model of student

development and college impress. *Community College Journal of*

*Research and Practice*, 31(3), 183-198. Retrieved on July 15, 2010 from

<http://www.tandfonline.com.lynx.lib.usm.edu/doi/pdf/10.1080/10668920600857222>.

0857222. doi:10.1080/10668920600857222.

Fike, D. S., & Fike, R. (2008). Predictors of first-year student retention in the

community college. *Community College Review*, 36(2), 68-88. Retrieved

on July 15, 2010 from <http://web.a.ebscohost.com.lynx.lib.usm.edu/ehost/>

pdfviewer/pdfviewer?vid=25&sid=8fb3ef9f-9724-4793-96db-f7c634b8  
b029%40sessionmgr4005&hid=4209. doi:10.1177/0091552108320222.

Fischman, J. (2011). Seven community colleges open an online doorway to better grades and graduation rates. *Chronicle of Higher Education*, B14-B16.

French, B. F., & Oakes, W. (2004). Reliability and validity evidence for the institutional integration scale. *Educational and Psychological Measurement*, 64(1), 88-98.

Friedlander, J., Pace, C., & Lehman, P. (1992). Community college student experience questionnaire. Retrieved March 15, 2011 from <http://lynx.lib.usm.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=loh&AN=test.208&site=ehost-live>.

Fry, R. (2010). Hispanics, high school dropouts and the GED. Retrieved March 25, 2012 from <http://pewhispanic.org/files/reports/122.pdf>.

Garvey, J., (2011). From GED to college degree: Creating pathways to postsecondary success for high school dropouts. *Jobs for the Future*, Retrieved April 19, 2012 from <http://www.eric.ed.gov/PDFS/ED519796.pdf>.

Green, D. W., & Ciez-Volz, K. (2010). Now hiring: The faculty of the future. *New Directions for Community Colleges*, 152, 81-92.

Handel, S. J., & Williams, R. A. (2011). Reimagining remediation. *Change: The Magazine of Higher Learning*, 43(2), 28-33. Retrieved on May 15, 2012 from <http://www.changemag.org>.

- Hoachlander, G., Sikora, A. C., Horn, L., & National Center for Educational Statistics (ED), W.C., & MPR Associates, B.A. (2003). Community college students: Goals, academic preparation and outcomes. Postsecondary Education Descriptive Analysis Report.
- Hodara, M. (2014). An examination of the impact of accelerating community college students' progression through developmental education. *Journal of Higher Education*, 85(2), 246-276. Retrieved on July 20, 2014 from <http://eds.a.ebscohost.com.lynx.lib.usm.edu/ehost/delivery?sid=654737a>.
- Hughes, B. (2012). Complementarily between the transfer goals of community colleges and historically black colleges and universities: Learning from history. *Community College Journal of Research & Practice*, 36(2), 81-92. doi:10.1080/10668920802466525.
- Hu, S. (2011). Reconsidering the relationship between student engagement and persistence in college. *Innovative Higher Education*, 36(2), 97-106.
- Hugo, E. B. (2012). What Counselors Need to Know About Community Colleges. *Journal of College Admission*, (214), 118-121.
- Karp, M., Hughes, K. L., & O'Gara, L. (2008). An exploration of Tinto's integration framework for community college students. *Journal of College Student Retention: Research, Theory & Practice*, 12(1), 69-86. Retrieved on July 15, 2011 from <http://www.eric.ed.gov/PDFS/ED501335.pdf>.
- Kolajo, E. F. (2004). From developmental education to graduation: A community College experience. *Community College Journal of Research and Practice*, 28(4), 365-371. doi:10.1080/10668920490424078.

- Kotamraju, P., & Blackman, O. (2011). Meeting the 2020 american graduation initiative (AGI) goal of increasing postsecondary graduation rates and completions: A macro perspective of community college student educational attainment. *Community College Journal of Research & Practice*, 35(3), 202-219. doi:10.1080/10668926.2010.526045.
- Kozeracki, C. A. (2002). ERIC Review: Issues in developmental education. *Community College Review*, 29(4), 83.
- Kraemer, B. A. (1997). The academic and social integration of hispanic students into college. *Review of Higher Education*, 20(2), 163-179.
- Kuh, G. D. (2009). The national survey of student engagement: Conceptual and empirical foundations. *New Directions for Institutional Research*, 2009(141), 5-20. doi:10.1002/ir.283.
- Levin, H., & Calcagno, J. (2008). Remediation in the community college: An evaluator's perspective. *Community College Review*, 35(3), 181-207. Retrieved on October 26, 2009 from <http://www.eric.ed.gov/PDFS/ED499923.pdf>.
- Levin, J. S., Cox, E. M., Cerven, C., & Haberler, Z. (2010). The recipe for promising practices in community colleges. *Community College Review*, 38(1), 31-58. doi:10.1177/0091552110374505.
- Makuakane-Drechsel, T., & Hagedorn, L. (2000). Correlates of Retention among Asian Pacific Americans in Community Colleges: The Case for Hawaiian Students. *Community College Journal of Research and Practice*, 24(8), 639-655. doi:10.1080/10668920050140800.

- Mamiseishvili, K. (2012). Academic and social integration and persistence of international students at U.S. two-year institutions. *Community College Journal of Research and Practice*, 36(1), 15-27. doi:10.1080/10668926.2012.619093.
- Mark, J. L., & Diaz, A. A. (2009). *SREB Fact book on higher education*. Southern Regional Education Board. Atlanta, GA.
- Markow, D., & Pieters, A. (2011). *The MetLife Survey of the American Teacher: Preparing Students for College and Careers*. (May 2011). Retrieved on March 23, 2012, from [http://www.metlife.com/assets/cao/contributions/foundation/american-teacher/MetLife\\_Teacher\\_Survey\\_2010.pdf](http://www.metlife.com/assets/cao/contributions/foundation/american-teacher/MetLife_Teacher_Survey_2010.pdf).
- Mazzarelli, C. (2010). *Community college presidents' attitudes toward remedial education*. Retrieved on April 15, 2010 from ProQuest LLC Dissertations and Theses.
- McArthur, R. (2005). Faculty-based advising: An important factor in community college retention. *Community College Review*, 32(4), 1-19. Retrieved on April 19, 2012 from <http://search.ebscohost.logon.lynx.lib.usm.edu>.
- McCabe, R. H. (2000). *No one to waste: A report to public decision-makers and community college leaders*. Washington, D. C.: Community College Press.
- McCabe, R. H. (2003). *Yes we can!: A community college guide for developing America's underprepared*. Phoenix, AZ: Rowman & Littlefield Publishers.
- McCabe, R. H., & Day, P. R. (1998). *Developmental Education: A Twenty-First Century Social and Economic Imperative*. Retrieved on June 10, 2010 from <http://www.eric.ed.gov/PDFS/ED421176.pdf>.

- McClenney, K. (2004). Keeping American's promise: Challenges for community colleges. *In Keeping American's promise: A report on the future of the community college* (pp.5-47). Denver, CO: Education Commission of the States.
- Mertler, C. A., & Vannatta, R. A. (2004). *Advanced and Multivariate Statistical Methods: Practical Applications and Interpretation, 3<sup>rd</sup> Edition*. Glendale, CA: Pyrczak Publishing.
- Mississippi Community College Board. (2012). Retrieved March 31, 2012 from MCCB <http://www.sbcjc.cc.ms.us>.
- Morrissey, S., & Liston, C. (2012). Reconsidering how to place students enrolling in north carolina's community college. Policy Brief. Retrieved on April 18, 2013 from <http://www.successnc.org/sites/default/files/initiative-docs/Multiple%20Measures%20Policy%20Brief.pdf>.
- Nitecki, E. M. (2011). The power of the program: How the academic program can improve community college student success. *Community College Review*, 39(2), 98-120. doi:10.1177/0091552111404926.
- Noel, L., & Levitz, R. (1982). *How to succeed with academically underprepared students: A catalog of successful practices*. The ACT National Center for the Advancement of Educational Practices: The American College Testing Program.
- Pace, C. (1984). Measuring the quality of college student experiences. An

account of the development and use of the college student experiences questionnaire. Retrieved on March 15, 2011 from ERIC Document Number ED255099.

Parker, S. (2012). From roadblock to gateway: Improving developmental education for student success. *Grantmakers For Education*. Retrieved on July 20, 2014 from <http://eds.a.ebscohost.com.lynx.lib.usm.edu/ehost/Delivery?sid=65d4737a>.

Parker, T. L. (2007). *Ending college remediation: Consequences for access and opportunity*. Policy Brief. ASHE/Lumina Fellows Series. Issue 2. Association for the Study of Higher Education.

Pascarella, E. T., & Terenzini, P. T. (1980). Predicting freshman persistence and voluntary dropout decisions from a theoretical model. *Journal of Higher Education*, 5160-75. doi:10.2307/1981125.

Pascarella, E. T., & Terenzini, P. T. (1991). *How College Affects Students*. San Francisco: Jossey-Bass Publishers.

Pascarella, E. T., & Terenzini, P. T. (2005). *How College Affects Students: A Third Decade of Research*. San Francisco: Jossey-Bass Publishers.

Patterson, S. (2001). Smith-Hughes act of 1917. Retrieved on May 29, 2012 from <http://jschell.myweb.uga.edu/history/legis/smithhughes.htm>.

Pearl River Community College (PRCC). (2010). About us: Our rich history. Retrieved on June 12, 2010 from <http://www.prcc.edu>.

Perin, D. (2006). Can community colleges protect both access and standards?



- The problem of remediation. *Teachers College Record*, 108(3), 339-373.  
doi:10.1111/j.14679620.2006.00654.x.
- Porter, A. (2006). U.S. college graduation rates lack, continue slipping. *The Daily Campus*. Retrieved from <http://www.dailycampus.com>.
- Price, D. V. (2004). Defining the gaps: Access and success at america's community colleges. In *Keeping American's promise: A report on the future of the community college* (pp.5-47). Denver, CO: Education Commission of the States.
- Oseguera, L., & Rhee, B. (2009). The influence of institutional retention climates on student persistence to degree completion: A multilevel approach. *Research in Higher Education*, 546-569. doi:10.1007/s11162-009-9134-y.
- Romero, M. (2004). Who will lead our community colleges? *Change*, 36(6), 30-34. Retrieved on March 15, 2011 from <http://lynx.lib.usm.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=15195052&site=ehost-live>.
- Saladiner, J. E. (2011). *Student involvement, academic success, and retention among freshman students in a south texas university: An explanatory sequential mixed methods inquiry*. Retrieved on May 29, 2012 from ProQuest Dissertations and Theses, (929305959).
- Schmitt, M., & Duggan, M. H. (2011). Exploring the impact of classified Staff interactions on student retention: A multiple case study approach. *Community College Journal of Research and Practice*, 35(3), 179-190.
- Schultz, R. E., & Wattenbarger, J. L. (1968). A new leadership program for state

level community junior college professional staff. *Junior College Journal*, (39), 2.

Seidman, A. (2005). *College Student Retention: Formula for Student Success*. Westport, CT: Greenwood Publishing Group.

Sherwin, S. (2011). Boosting underprepared students. *Tribal College Journal*, 22(4), 20-25. Retrieved on March 4, 2011 from <http://p2048.lynx.lib.usm.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=60987827&site=ehost-live>.

Skolnik, M. L. (2011). Re-conceptualizing the relationship between community colleges and universities using a conceptual framework drawn from the study of jurisdictional conflict between professions. *Community College Review*, 39(4), 352-375. doi:10.1177/0091552111424205.

Southern Regional Education Board. (2009). *Fact Book Bulletin*. Atlanta, GA: Southern Regional Education Board.

Stage, F. K. (1989). Reciprocal effects between the academic and social integration of college students. *Research in Higher Education*, 30(5), 517-530.

Stein, J. (1980). *The random house college dictionary: The unabridged edition*. New York, NY: Random House.

Strong American Schools. (2008). *Diploma to nowhere*. Retrieved May 11, 2012 from <http://hub.mspnet.org/index.cfm/17122>.

Summers, M. D. (2003). Eric review: Attrition research at community colleges. *Community College Review*, 30(4), 64-84. Retrieved on July 15, 2011 from

<http://web.ebscohost.com.logon.lynx.lib.usm.edu/ehost/pdfviewer/pdfviewer?sid=44be3ed4-3baa-44aa-90a9-868df369b0bc%40sessionmgr4&vid=20&hid=10>.

Tanaka, G. (2002). Higher education's self-reflexive turn: Toward an intercultural theory of student development. *The Journal of Higher Education*, 73(2), 263-296. Retrieved on June 7, 2010 from <http://www.jstor.org/stable/1558412>.

Tavakolian, H., & Howell, N. (2012). The impact of no child left behind act." *Franklin Business & Law Journal* (1)70-77. *Legal Collection*, EBSCOhost. Retrieved on March 2, 2012 from <http://web.b.ebscohost.com.lynx.lib.usm.edu/ehost/pdfviewer/pdfviewer?vid=51&sid=f899917b-075d-4cb4-be1e-bdbf4309fa94%40sessionmgr110&hid=105>.

Templin, B. (2011). *America's community college: The key to the college completion challenge?* Presidency: Special Supplement Issue, 7-9.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45, 89-125.

Tinto, V. (1987). *The Principles of Effective Retention*. Retrieved on June 10, 2012 from <http://www.eric.ed.gov/PDFS/ED301267.pdf>.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition*. 2<sup>nd</sup> Edition. Chicago, IL: University of Chicago.

Tinto, V. (1997). College as a communities: Exploring the educational character of student persistence. *Journal of Higher Education*, 68, 599.623. Retrieved on June 10, 2012 from <http://www.jstor.org/stable/2959965>.

- Tinto, V. (1998). Colleges as communities: Taking research on student persistence seriously. *Review of Higher Education*, 21, 167-181. Retrieved on June 7, 2012 from [http://web.ebscohost.com/login.linx.lib.usm.edu/ehost/detail?sid= 44be3ed4-3baa-44aa-90a9868df369b0bc%40sessionmgr4&vid= 39&hid=10](http://web.ebscohost.com/login.linx.lib.usm.edu/ehost/detail?sid=44be3ed4-3baa-44aa-90a9868df369b0bc%40sessionmgr4&vid=39&hid=10).
- Tinto, V. (2007). Research and practice of student retention: What next?. *Journal of College Student Retention: Research, Theory & Practice*, 8(1), 1-19.
- Tinto, V., & Cullen, J. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45, 89-125. Retrieved from <http://www.eric.ed.gov/PDFS/ED078802.pdf>.
- Tinto, V. (2004). Student retention and graduation: Facing the truth, living with the consequences. Occasional Paper 1. *Pell Institute for the Study of Opportunity in Higher Education*, 1-16. Retrieved on June 10, 2012 from <http://files.eric.ed.gov/fulltext/ED519709.pdf>.
- Townsend, B. K., & Wilson, K. (2006). A hand hold for a little bit: Factors facilitating the success of community college transfer students to a large research university. *Journal of College Student Development*, 47(4), 439-456. Retrieved on March 27, 2012 from [http://muse.jhu.edu/login.linx.lib.usm.edu/journals/journal\\_of\\_college\\_student\\_development/v047/47.4townsend.html](http://muse.jhu.edu/login.linx.lib.usm.edu/journals/journal_of_college_student_development/v047/47.4townsend.html). doi:10.1353/csd.2006.0052.
- Twombly, S., & Townsend, B. K. (2008). Community college faculty: What we know and need to know. *Community College Review*, 36(1), 5-24.
- Vandal, B. (2009). Transfer and articulation. *The Progress of Education Reform*,

10(5). Retrieved on July 15, 2011 from <http://www.ecs.org/clearinghouse/82/06/8206.pdf>.

Vandal, B. (2010). Rebuilding the remedial education bridge to college success. Getting Past Go. Retrieved on June 10, 2012 from <http://www.Gettingpastgo.org/docs/GPGpaper.pdf>.

Veenstra, C. (2009). A strategy for improving freshman college retention. *Journal for Quality & Participation*, 31(4), 19-23. Retrieved on June 17, 2010 from <http://lynx.lib.usm.edu:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&N=36560653&site=ehost-live>.

Viadero, D. (2009). Community college a research puzzle. *Education Week*, 29(2), 1-14. Retrieved on May 15, 2012 from <http://web.b.ebscohost.com.lynx.lib.usm.edu/ehost/pdfviewer/pdfviewer?vid=6&sid=f899917b-075d-4cb4-be1e-bdbf4309fa94%40sessionmgr110&hid=105>.

Voorhees, R. A. (2001). Financing community college for a new century. *The Finance of Higher Education: Theory, Research, Policy and Practice*. Higher Education Series, 480-500. Retrieved on March 31, 2012 from <http://www.tandfonline.com.lynx.lib.usm.edu/doi/pdf/10.1080/106689200264178>.

Wang, X. (2009). Baccalaureate attainment and college persistence of community college transfer students at four-year institutions. *Research in Higher Education*, 50(6), 570-588. Retrieved on August 1, 2010 from <http://web.b.ebscohost.com.lynx.lib.usm.edu/ehost/pdfviewer/>

pdfviewer?vid=9&sid=f899917b-075d-4cb4-be1e-bdbf4309fa94%  
40sessionmgr110&hid=105.

- Weiss, M. J., Visher, M., & Weissman, E. (2011). Learning communities for developmental education students: Early results from randomized experiments at three community colleges. *Society from Research on Educational Effectiveness*. Retrieved on March 31, 2012 from <http://www.eric.ed.gov/PDFS/ED301267.pdf>.
- West, D. (2012). Community college report card: How do we measure up? Coahoma Community College Professional Development Conference. Retrieved on July 21, 2014 from <http://www.ccc.cc.ms.us/2012%20Professional%20Development%20Conf%20Booklet.pdf>.
- Wilson, C. D. (2004). Coming through the open door: A student profile. In *Keeping American's promise: A report on the future of the community college* (pp.5-47). Denver, CO: Education Commission of the States.
- Wolf-Wendel, L., Ward, K., & Kinzie, J. (2009). A tangled web of terms: The overlap and unique contribution of involvement, engagement and integration to understanding college student success. *Journal of College Student Development*, 50(4), 407-428. Retrieved on June 1, 2010 from [http://muse.jhu.edu.lynx.lib.usm.edu/journals/journal\\_of\\_college\\_student\\_development/v050/50.4.wolfwendel.html](http://muse.jhu.edu.lynx.lib.usm.edu/journals/journal_of_college_student_development/v050/50.4.wolfwendel.html). doi: 10.1353/csd.0.0077.
- Young, J. B., & Ewing, J. M. (1978). *The Mississippi public junior college story: The first fifty years (1922-1972)*. Jackson, MS: University Press of Mississippi.